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C. E. GRINSKY

IN THE
Circuit Court of the United States
NINTH JUDICIAL CIRCUIT
IN AND FOR THE
Northern District of California

THE SPRING VALLEY WATER
WORKS (a Corporation),

Complainant,

vs.

THE CITY AND COUNTY OF SAN
FRANCISCO (a Municipal Corpora-
tion), et al.,

Defendants.

No. 13,395
In Equity.

THE SPRING VALLEY WATER
COMPANY (a Corporation),

Complainant,

vs.

THE CITY AND COUNTY OF SAN
FRANCISCO (a Municipal Corpora-
tion), et al.,

Defendants.

Nos. 13,598
and 13,756
In Equity.

OPINION OF HON. E. S. FARRINGTON, UNITED
STATES DISTRICT JUDGE, ON FINAL HEARING

FILED OCT. 21, 1911

A. E. SHAW,
PAGE, McCUTCHEN & KNIGHT,
HELLER, POWERS & EHRLMAN,
Solicitors for Complainant;
JAMES L. ROBISON, of Counsel.

PERCY V. LONG, City Attorney, and
THOMAS E. HAVEN,
Solicitors for Defendants.

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In the Circuit
Court of the
United States.

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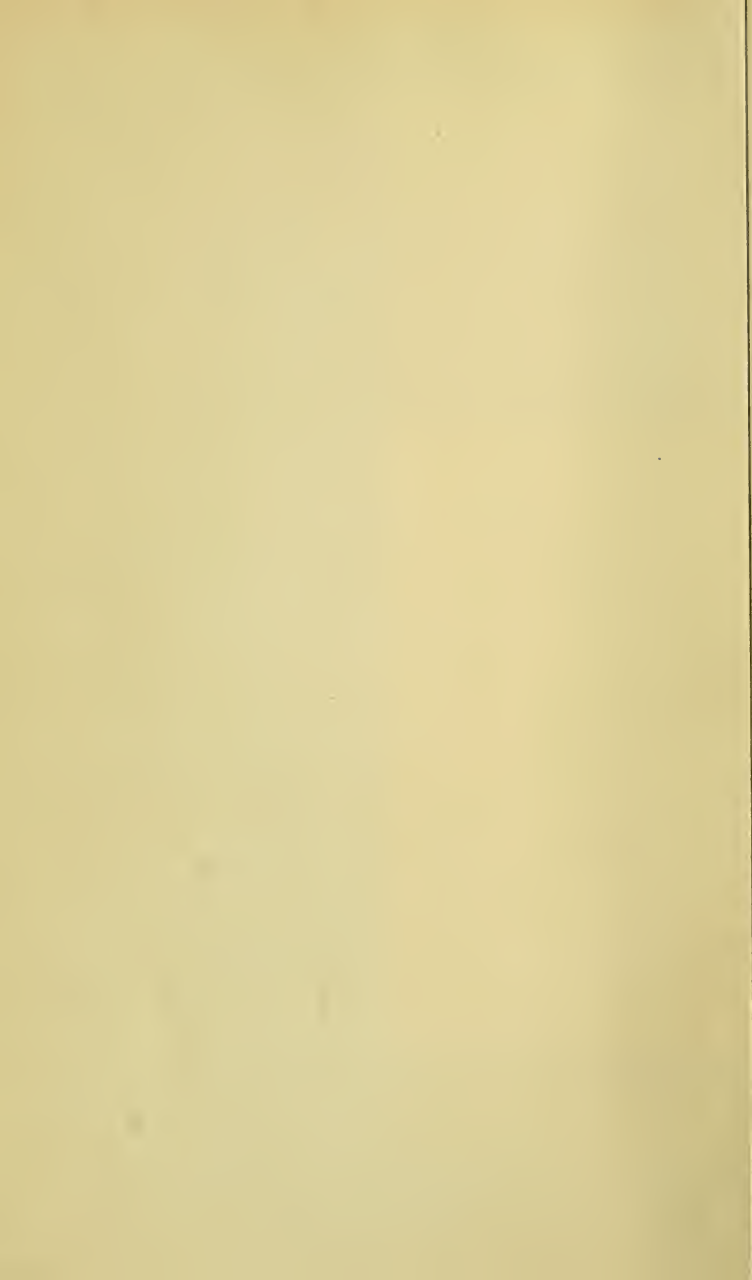
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In Equity.

A. E. Shaw, Page, McCutchen & Knight, Heller, Powers & Ehrman, Solicitors for Complainant. James L. Robison, of Counsel.

Percy V. Long, City Attorney, and Thomas E. Haven, Solicitors for Defendants.

Farrington, District Judge:

Under the ordinance of the City and County of San Francisco fixing water rates for the fiscal year 1902-3, the gross income of the Spring Valley Water Works was\$1,962,240.91

Of this amount there was collected
 from private rate-payers.....\$1,666,401.81
 From the City and County of San Francisco..... 161,401.95
 and from shipping and other sources..... 134,437.15

During that year the company disbursed
 For operating expenses.....\$454,013.77
 And for taxes..... 236,828.97
 The net income was..... \$1,271,398.17

In March, 1903, the Board of Supervisors by ordinance, reduced the rates to be collected from private consumers 7 per cent, otherwise the rates remained as in 1902. On the 20th day of the following month suit was brought by the Spring Valley Water Works in this Court against the City and County of San Francisco and its Board of Supervisors, to enjoin the enforcement of the ordinance. A preliminary injunction was issued almost immediately, and is still in force.

During the fiscal year commencing July 1st, 1903, and ending June 30th, 1904, the Spring Valley Water Works and its successor, the Spring Valley Water Company, collected rates under the ordinance of 1902.

Their gross income was.....\$2,075,983.09
 The amount collected if the ordinance of March,
 1903, had been in force, would have been....\$1,943,941.06
 Deducting from this estimated income..... \$566,786.97
 for operating expenses and..... \$325,287.66
 for taxes claimed to have been paid by the com-
 pany, there would have been a net income of.\$1,051,866.43.

The ordinance of March 7th, 1904, reduced the rate
 on fire hydrants, of which there were 4,057 in the city,
 from \$2 to \$1 per month for each hydrant; otherwise
 the rates were fixed as in 1903. This reduction made
 a difference of \$48,684.00 in the annual income of the
 Company. June 1st, 1904, the Spring Valley Water
 Company brought suit to restrain the enforcement of
 this ordinance. A preliminary injunction still in ef-
 fect enabled the Company to continue the 1902 rates,
 under which its income for that year was.....\$2,131,323.98.
 The estimated gross income under the ordinance
 of 1904, if enforced, would have been.....\$1,996,496.59.
 Deducting from this estimated income..... \$543,672.42
 for operating expenses, and..... \$336,410.30
 for taxes claimed to have been disbursed by the
 Company, there would have been a net in-
 come of\$1,116,413.87.

March 13th, 1905, the ordinance of the previous
 year was re-enacted without change. This was fol-
 lowed by a third suit commenced May 2nd. A pre-
 liminary injunction permitted the Water Company to
 maintain the rates of 1902 during the following year.
 The gross income received therefrom is estimated at
 \$2,243,000.00. The ordinance of 1905, if enforced,
 would have

yielded an estimated gross income of.....\$2,110,200.00
 and a net income of.....\$1,172,584.63,

after subtracting..\$387,198.93 for taxes, and
\$550,416.44 for operating expenses.

For rate fixing purposes the Board of Supervisors valued the Company's property as follows:

In 1902.....	\$24,468,210.00
1903.....	24,124,389.00
1904.....	24,672,212.00
1905.....	25,001,441.00

Complainant declares that it is entitled to a net return of 7 per cent per annum upon a valuation in excess of \$40,000,000 for 1903-5, and upon a valuation in excess of \$50,000,000 for 1905-6; i. e., a net income of \$2,800,000 for each of the first two years, and \$3,500,000 for the last year.

Tabulating the above figures we have:

	1902-3	1903-4	1904-5	1905-6
Gross income under 1902 ordinance..	\$1,962,240	\$2,075,983	\$2,131,323	\$2,243,000
Estimated gross income if ordinance enforced		1,943,941	1,996,496	2,110,200
Operating expenses.	454,013	566,786	543,672	550,416
Taxes	236,828	325,287	336,410	387,198
Actual net income under 1902 ordinance	1,271,398	1,183,910	1,251,241	1,305,384
Estimated net income if ordinance enforced		1,051,866	1,116,413	1,172,584
Net income demanded		2,800,000	2,800,000	3,500,000

In the pleadings defendants admit a valuation for the property in actual use for supplying water to the city, of from twenty to twenty-four million dollars.

In framing the rates for 1903-4, the Supervisors estimated taxes at	\$242,000.00
and operating expenses at.....	450,000.00

Total	\$692,000.00
-------------	--------------

And gross income under the new ordinance at...	\$1,960,881.97
--	----------------

Their estimates exceeded the gross income under the ordinance if enforced, by.....	\$9,171.90
--	------------

And fell short of the actual disbursements.....	\$200,074.63
---	--------------

Their result was a net income of.....	\$1,268,881.94
---------------------------------------	----------------

This is \$62,662.49 over and above a 5 per cent income on a valuation of.....	\$24,124,389.00
---	-----------------

If \$724,773.73, interest paid on the bonded and floating debt of the Company during the fiscal year 1903-4 is deducted, there remains \$524,108.21, sufficient to pay a dividend of 3.74 per cent on.....\$14,000,000.00,

the issued capital stock of the Spring Valley Water Works.

During that year the Company actually disbursed \$566,786.97 for operating expenses and.....\$325,287.66 for taxes, or a total of..... \$892,074.66. If this be subtracted from.....\$1,943,941.06, the estimated collections under the ordi-

nance of 1903, if enforced, the result.\$1,051,866.43, is but 4.36 per cent on the valuation adopted by the Board.

In their answer, filed May 29th, 1903, defendants assert that during the fiscal year 1903-4, operating expenses will not exceed \$400,000, or taxes \$240,000. Now after a showing of an actual disbursement for these items of \$892,074.63, defendants contend that \$91,174.88 of this amount is excessive, and under the

evidence no more than \$484,625.79 for operating expenses, and \$316,273.96 for taxes are proper.

Assuming this to be correct, the net income will be \$1,143,041.31, or 4.7 per cent on the Supervisors' valuation of \$24,124,389.00.

In other words, \$63,174.14 short of a 5 per cent return. However, there is evidence showing that the Company received during the year \$141,337 additional income from rents, not included in the gross income of \$1,946,941.06. There is also evidence tending to show that a portion of the property included in the Supervisors' valuation was neither used nor useful in supplying the city with water during that year.

Complainant contends that "the rates fixed by the
 "several ordinances in question are unjust, unfair, un-
 "reasonable, confiscatory and unconstitutional; that
 "the ordinances were finally passed without notice to
 "complainant, and without any provision in any law,
 "organic or statutory, of the State of California, pro-
 "viding for such notice; that they were fixed arbi-
 "trarily and at random, and by mere guess-work, and
 "were not based upon actual value of the property,
 "but upon the mere whim of the Board of Supervis-
 "ors; that said Board never did determine or pretend
 "to determine the value of the property of the com-
 "plainant actually in use or to be used; but the evi-
 "dence upon which the Board acted was mere hearsay
 "and unsworn statements; that the rates were fixed
 "by the Board without regard to complainant's right
 "to a reasonable income, based on the cost or the actual
 "value of the property owned by the Company, and
 "used in supplying water to San Francisco and its in-

“habitants; without regard to complainant’s indebtedness, or the annual interest thereon, or its actual operating expenses or taxes, or the right of its stockholders to a reasonable or any dividend on their stock; without any allowance for depreciation; without reference to the value of the service rendered or to be rendered, and without taking into account the value of the franchise and going business.”

In the bill of complaint for the second suit, and again in the bill for the third suit, it is alleged that complainant had acquired at a cost of many hundreds of thousands of dollars lands, water rights and properties for its reasonably immediate use in supplying San Francisco with water; that it is preparing such property for such use, and that such properties are reasonably worth many millions of dollars, but the defendants have refused to take such values into consideration in any way in fixing the value of complainant’s plant, or in establishing rates.

In complainant’s bills for 1904 and 1905 it is alleged that the value of the franchise and going business should be a part of such actual value, and should be added to the values of said properties; that the franchise increases the value of the plant many million dollars, and the going business has a distinct, intrinsic and separate value of many millions of dollars beyond the actual value of the plant.

These allegations are denied. Defendants take the position that complainant is entitled to no income from water rates except upon property actually used in supplying the water, and that property acquired and being

prepared for future use should not be considered. Defendants also deny that complainant has any franchise, and deny that the going business has added anything to the value of the tangible property, or that it has any value beyond the value of the plant actually in use.

Complainant is dissatisfied both with the valuation and the rate adopted by the Board of Supervisors. It alleges that the entire property is worth more than \$50,000,000; that its actual cost to the stockholders was as follows:

January 1st, 1903.....	\$36,253,235.70
January 1st, 1904.....	38,792,040.01
January 1st, 1905.....	50,513,722.98

This actual cost is ascertained by adding to the proceeds arising from assessments and from contributions by stockholders, interest thereon compounded annually at current contemporary rates, and deducting all dividends paid, plus interest thereon compounded in like manner.

Complainant's demands are thus summarized in the opening brief and argument:

"That the value of complainant's property used and
 "useful in supplying the City of San Francisco and its
 "inhabitants with water, is the sum of \$45,000,000;
 "that complainant is entitled as a return (to) seven
 "per cent on the value thereof; that the various ordi-
 "nances establishing rates here complained of be de-
 "clared unreasonable, confiscatory, and of no effect;
 "that this complainant is entitled to a water rate
 "which shall produce seven per cent upon the valua-
 "tion of \$45,000,000, and in addition thereto shall

“ produce a sum sufficient to remunerate this com-
 “ plainant for its operating expenses, taxes, and a fund
 “ for depreciation; that this Court further determine
 “ the value of complainant’s franchise and its value
 “ as a going concern, and the value of its good will,
 “ and all other intangible elements of value; and
 “ * * * that the injunction herein issued be made
 “ perpetual, and that such further relief be granted
 “ complainant as is in accordance with the prayer of
 “ its several bills, and in accordance with the usages of
 “ equity.”

The three suits are tried together under a stipula-
 tion that all testimony shall be considered as taken
 separately in each case. The evidence consists of some
 seven thousand pages of typewritten testimony, and
 240 exhibits, many of which are voluminous and com-
 plicated.

The Spring Valley Water Works, complainant in
 the first suit, was a California corporation, having an
 issued capital stock of \$14,000,000, divided into 140,-
 000 shares of the par value of \$100 each, and dis-
 tributed among more than 1800 stockholders. In Sep-
 tember, 1903, all the property of the Spring Valley
 Water Works passed into the possession and owner-
 ship of the Spring Valley Water Company, also a
 California corporation, having a capital stock of \$28,-
 000,000, divided into 280,000 shares of the par value
 of \$100 each. The market value of this stock June
 1st, 1904, was from \$37 to \$38.50 per share. A like
 value is alleged for May 1st, 1905. The depreciation
 in the market value of the stock is claimed to be the
 result of unjust and unfriendly rate regulation.

The interest bearing indebtedness of the Company, and the actual interest charged thereon, as stated in the pleadings, was as follows:

For 1903 and 1904, principal \$13,975,000, interest, \$708,500; for 1904 and 1905, principal, \$14,975,000, interest \$715,000; for 1905 and 1906, principal, \$15,975,000, interest, \$778,500.

The following rules will in this opinion be regarded as settled:

1. Property devoted to public use is subject to public regulation.

2. The use of all water when appropriated for sale, rental or distribution is a public use, and subject to the regulation and control of the State in the manner prescribed by law.

Const. of Cal., Art. XIV.

3. Under the law it is the duty of the Board of Supervisors of the City and County of San Francisco in the month of February of each year, to fix by ordinance the rates to be collected by any person, company or corporation for the use of water to be supplied to that city and county during the year commencing on the first day of July thereafter. The ordinance by which such rates are established shall continue in force one year, and no longer.

Const. of Cal., Art. XIV, Sec. 1;

Spring Valley Water Co. v. City and County of San Francisco, 165 Fed. 667, 669.

4. The rates so fixed must be sufficient to afford a

compensation for the water to be supplied which is just and reasonable, both to the company rendering the service and to the public. The Board of Supervisors may not under the guise of regulation, establish rates which will deprive the water company of the whole or any portion of that which under the circumstances is a just and reasonable return for the use of its property devoted to public service. The use and profits of property are themselves property, and are alike under the protection of the Federal Constitution.

5. Rates established by ordinance of the Board of Supervisors are presumed to be just and reasonable, and the burden of proving the contrary is upon complainant.

Contra Costa Water Co. v. City of Oakland,
113 Pac. 668;

*Railroad Com. of Louisiana v. Cumberland
Telephone and Telegraph Co.*, 212 U. S.
414.

6. It is not within the power of the court to fix or regulate water rates. That is purely a legislative function, and cannot be exercised by this tribunal. But whether rates already established are just and reasonable is a question for the court. If the court in the exercise of its judicial discretion determines that a rate so fixed is unreasonable, that determination must prevail over any presumption in favor of the ordinance. This court cannot control the discretion of the Board of Supervisors; it has no power to review, revise or correct an ordinance fixing water rates; it has no authority to substitute its judgment for that of the board.

It cannot interfere with the collection of rates established under such an ordinance "unless they are so
 "plainly and palpably unreasonable as to make their
 "enforcement equivalent to the taking of property for
 "public use without such compensation as under all
 "the circumstances is just both to the Company and
 "to the public."

Prentiss v. Atlantic Coast Line Co., 211 U. S.
 210;
Spring Valley Water Co. v. San Francisco, 165
 Fed. 667.

7. There is but one issue for the court to determine: Are the water rates in question so unjust and unreasonable as to be confiscatory? This question must be answered by the court from its own independent investigation, without reference to the methods of investigation pursued by the Board of Supervisors.

Spring Valley Water Works v. San Francisco,
 124 Fed. 574, 584;
Spring Valley Water Co. v. San Francisco, 165
 Fed. 667, 681.

8. What the Company is entitled to demand in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public.

San Diego L. & T. Co. v. National City, 174
 U. S. 739, 757;
San Diego L. & T. Co. v. Jasper, 189 U. S.
 439, 442;
Willcox v. Consolidated Gas Co., 212 U. S.
 19, 41.

9. The public has a right to demand that no more shall be exacted than the services rendered are reasonably worth. The public cannot be subjected to unreasonable rates in order simply that stockholders may earn dividends.

Covington & Lexington T. R. Co. v. Sanford,
164 U. S. 578, 597, 598;
Spring Valley Water Co. v. San Francisco, 165
Fed. 667.

10. Cost of reproduction is not a fair measure of value, unless a proper allowance is made for depreciation, because all constructive portions of the plant are subject to decay, and to be worn out or consumed by use.

Knoxville v. Knoxville Water Co., 212 U. S. 1;
Contra Costa Water Co. v. City of Oakland,
113 Pac. 668.

11. Original cost is not always a fair criterion of present value because the plant may have cost too much, or it may be of unnecessary dimensions. If it has increased in value since its acquisition, the company is entitled to the benefit of such increase, if such increased valuation does not require a return so large as to be unreasonable and unjust to the public.

Willcox v. Consolidated Gas Co., 212 U. S. 19;
Beale & Wyman on R. R. Rate Regulation,
Sec. 342.

12. The aggregate value of bonds and issued capital stock of the company at present market prices is not a reliable index of the value of the plant, because such prices often rise and fall from the opera-

tion of causes which have little or nothing to do with the real intrinsic value of the property; and the bonded or other indebtedness of the company may exceed the actual value of its property.

The most important fact to be determined is the value of the property. The value to be ascertained is the value at the time of the inquiry. Only that property is to be considered which was then used and useful in supplying San Francisco with water. Among the proper matters to be considered are the original cost of construction; the amount expended in permanent improvements; the amount and market value of stock and bonds; the present as compared with original cost of construction; the probable earning capacity of the property under the particular rates prescribed by the ordinance for each of the years in question; the sums required to meet operating expenses; what it will cost to obtain water, equal in quantity and quality to the present supply, from the next most available source; the depreciation suffered by that portion of the plant which is worn by use or action of the elements, or shorn of its value by newer, cheaper and more efficient appliances and machinery; the fact that the plant has a franchise and is a going concern with an established business and thousands of customers whose buildings are connected with the distributing system; and appreciation in value since the various properties constituting the plant were acquired.

To each of these factors just and proper weight must be given; and, finally, the result must be the reasonable and fair value of the plant as between the company and the public.

The property thus to be appraised naturally falls into four geographical divisions: The Peninsula system, the Alameda system, the Lake Merced property and the City Distributing system.

The Peninsula system includes some 18,740 acres of land south of San Francisco, on which are three large artificial lakes, the Pilarcitos, the San Andreas and the Crystal Springs. The Pilarcitos constructed before 1868, at an elevation of about 700 feet, covers 105 acres of land, and is capable of holding one billion gallons of water. The San Andreas, constructed before 1870, at an elevation of 450 feet above the sea, covers 475 acres, and holds five and one-half billion gallons. The Crystal Springs, completed in 1890, at an elevation of 280 feet, covers 1,300 acres of ground. Its capacity is 19 billion gallons. The dam is a concrete structure, 145 feet in height; it is of sufficient strength to support an additional height of more than 30 feet, thus its capacity may be increased to 29 billion gallons, and its surface to 1,730 acres, or nearly $2\frac{3}{4}$ square miles. The three reservoirs supply San Francisco daily about 15,000,000 gallons of water. The combined storage capacity of the three is 25,500,000,000 gallons, or about 3,267,000,000 cubic feet, an amount almost sufficient to supply San Francisco for two years. The Alameda system lies east of San Francisco Bay. Beyond Sunol there are about 600 square miles of territory drained by Alameda Creek and its tributaries; this stream naturally flows through Sunol Canyon to the Bay. Immediately above Sunol are about 1,000 acres of gravel bed. Across Sunol Canyon rest-

ing on the bedrock, an underground dam holds back the sub-surface flow. Fourteen thousand feet of cement-lined tunnels collect the water after it has filtered through the gravel.

The holdings of the company amount to about 6 per cent of this entire watershed area, or 23,339.59 acres, located at points most favorable to the control of its output. From this source about 15,000,000 gallons of water daily are sent to San Francisco. It passes under the Bay near Dumbarton Point through four large submarine pipes, thence it is taken to Belmont Pumping Station, and there forced into the city. Within the city, constituting the distribution system of the company, there are nine distributing reservoirs with a joint capacity of 87,000,000 gallons, 410 miles of distributing pipes, carrying water through the streets to more than 49,000 customers. These mains are connected with nearly every building, public or private, in the city. It has nine pumping stations with a total daily capacity of 72,000,000 gallons; more than 76½ miles of iron pipe from 22 to 54 inches in diameter, and six miles of tunnel. The Lake Merced property lies within six miles of the center of the city; it includes 2,730 acres of land, on which is a lake covering 400 acres and capable of holding 2½ billion gallons of water. Its daily output is about 3,000,000 gallons. By means of a pump on the south arm of the lake this water can be forced into the company's mains.

Seven engineers have examined this property and testified as to its value. Their estimates range from \$22,736,643.55 to \$70,000,000. No two of them agree.

The fact that these men, among the most eminent in their profession, after months, and even years, as in two cases, of careful investigation, should arrive at results so far apart, shows that the problem is one of unusual difficulty.

The experts for complainant value the property thus:

	Mr. Schuss- ler	Mr. Adams	Mr. Schuy- ler	Mr. Hering
Structures ...	\$19,467,000	\$16,062,445	\$17,924,806	\$19,649,000
Lands and water rights	31,932,000	17,886,948 or 22,886,948	28,036,000	20,121,900
Stock on hand	270,000	219,098	.....	.....
Meters .....	.....	160,000	.....	.....
Going concern	.....	5,671,509	.....	.....
Intangible val- ue .....	.....	.....	.....	5,000,000
Franchise ....	.....	.....	.....	.....
Telephones ...	.....	.....	.....	.....
Miscellaneous.	.....	.....	.....	.....
	\$51,669,000			
Less amount deducted to get round figures	169,000			
Totals	\$51,500,000	\$40,000,000 or \$45,000,000	\$45,960,000	\$44,770,900

The experts for defendants value the property as follows:

	Mr. Grunsky	Mr. Grunsky	Mr. Dockweiler	Mr. Fitzgerald
	(Jan. 30, 1903)	(Jan. 26, 1904)		
Structures ..	\$14,500,830	\$15,076,744	\$13,672,086	\$17,367,400
Lands and water rights	9,339,559	9,395,968	10,111,304	4,104,243
Stock on hand	269,000	185,500	270,000	250,000
Meters .....	.....	.....	.....	.....
Going concern	1,400,000	.....	.....	.....
Intangible value .....	.....	.....	.....	.....
Franchise	2,500,000	.....	.....	.....
Telephones ...	15,000	15,000	.....	15,000
Miscellaneous.	.....	.....	.....	1,000,000
Totals	\$28,024,389	\$24,673,212	\$24,053,390	\$22,736,643

Mr. Stearns, a witness for complainant, and Mr. Duryea, a witness for defendants, estimate the total value of the plant at \$70,000,000 and \$25,451,000, respectively.

Mr. Fitzgerald states that his estimate "is based only upon the actual reasonable cost of construction at the time the works were built, and the cost to the company of its lands, both of the sources of supply and in the city." This amount differs but little from the actual cost of the property as reported by Mr. Wenzelberger, after an examination of the Company's books. It is also in substantial accord with the cost as estimated by Mr. Dockweiler. No allowance, however, is made for depreciation in structures, or for appreciation in value of land since it was originally acquired.

Mr. Dockweiler, after what appears to have been a most exhaustive examination, extending over more than two years, fixes the primary cost of that portion

of the plant in use January 1st, 1904, at \$22,880,462.71. The present value of the property on the same date he fixes at \$24,053,390. This he ascertains by appraising the water rights, rights of way, and various tracts of land, and by estimating the value of the structures, as they were on the last mentioned date. The former he fixes at \$10,111,304, and the latter at \$13,942,086.

Mr. Duryea says that a substitute system capable of supplying San Francisco with 50,000,000 gallons of water per day from properties of the Bay Cities Water Company can be had at a cost of \$25,451,000; and that the cost of a similar system, supplying the city but 35,000,000 gallons per day, the average present output of the Spring Valley Plant, would not exceed \$20,000,000.

Mr. Grunsky arrived at his valuation, \$28,024,389, after an examination made officially as city engineer. He fixes the value of the Alameda property at its original cost. The values of remaining portions of the system are obtained by actual appraisement of lands and structures. In his report to the Supervisors he fixed \$1,400,000 as the value of going business, which he estimated as being 25 per cent of the valuation of the City Distributing System. This was given because there are numerous connections between the Company's distributing system and the service pipes of customers, and also to cover contingencies. \$2,500,000 he allowed for franchise. This amount he fixed at 10 per cent of "a reasonable estimate of the cost of re-constructing and reacquiring the properties, including the value of the established business."

Some time prior to these suits, Mr. Grunsky as city engineer, estimated the cost of bringing a supply of water to San Francisco from the Tuolumne River at \$39,531,000. His plan contemplates two reservoirs in the Sierras, Lake Eleanor and Hetch Hetchy, with a joint storage capacity of 60 billion gallons. When released from the reservoirs the water will flow twelve miles in the channel of Tuolumne River, thence through tunnels and canals to the east side of the San Joaquin Valley. From that point it will be taken through two 48-inch pipes to Altamont, where it will be pumped over the pass, then piped to San Francisco, and delivered at an elevation of 200 feet. The distance covered will be 165 miles. Mr. Grunsky's plan also includes a three billion gallon reservoir, with a pumping plant capable of raising 40 million gallons of water per day at Belmont, in order to provide water for the city in case of accident or emergency. Mr. Grunsky's belief is that this plant will deliver daily between fifty and sixty million gallons of water at the south line of San Francisco. The City Distribution System, besides piping, will include two large receiving reservoirs, one on the House of Refuge tract, and the other on Mission Road and Amazon street, with a joint capacity of 154,000,000 gallons; six service reservoirs with a combined capacity of 57,000,000 gallons; fifteen steel tanks capable of holding in the aggregate over seven million gallons; and two pumping stations.

His estimate of cost is as follows:

Works for collection, storage and delivery of water..	\$30,724,000
City Distribution System.....	8,807,000
Total	<u>\$39,531,000</u>

After examining Mr. Grunsky's plans and estimates, Mr. Stearns says that the original cost will be \$54,400,000; that additions and renewals which must be made, and future taxes and operating expenses which must be paid, will cost much less for the Spring Valley property than for the proposed system. The present worth of this difference he estimates at \$16,100,000. Adding this sum to the original cost, \$54,400,000, he obtains \$70,500,000, and declares the final result of his computation is that the Spring Valley Plant, measured by the Tuolumne scheme, is worth \$70,000,000.

Mr. Hering is of the opinion that Mr. Grunsky has underestimated the cost of iron pipe, and failed to make a proper allowance for interest during construction; that the proposed open channel between the lake outlet and the San Joaquin Valley is impracticable. He fixes the minimum cost of constructing the Tuolumne plant at \$55,000,000. He finds the value of the tangible property of the Spring Valley Water Company as follows:

City Distributing System.....	\$ 7,700,000
Works for collecting and conveying water to distributing reservoirs	11,949,000
Rights of Way.....	517,000
Real estate for storage reservoirs, watersheds and other purposes	12,498,900
Water rights	7,106,000
Total	<u>\$39,770,900</u>

To this last amount Mr. Hering adds one-third of the difference between the value of the physical plant and the cost of the next available substitute; that is, one-third the difference between \$39,770,900 and \$55,000,-

000. The result, \$45,000,000, in round numbers, he says is the least value of the Spring Valley plant which would be fair. He values the water rights at \$150,000 per million gallons of daily delivery; the watershed lands at \$100, and the reservoir sites at \$1500 per acre.

In Mr. Schuyler's opinion the cost of the Tuolumne system will be.....\$54,896,000

By comparison with this figure he estimates the appreciation in value of real estate and water rights of the Spring Valley Water Company since purchase to be 16,497,000

To this he adds his estimate of their original cost.... 11,539,000

Which gives as his total estimate of the value of the lands and water rights..... 28,036,000

Adding to this figure his estimate of construction.... 17,924,000

He finds the total value of the plant to be.....\$45,960,000

He concludes that "The reasonable value of the " property for rate fixing purposes is not far from this " figure, or between this and \$40,000,000."

Mr. Adams considers first, that in order to pay stockholders current rates of interest on their investment from its inception, the property should have a value of \$50,500,000.

This amount is made up as follows:

Direct contribution in cash by stockholders\$ 9,177,496.82

Amount realized from sale of outstanding bonds 15,975,000.00

Difference between dividends actually paid by the Company and interest on stock investment computed at current contemporary rates 25,361,226.16

Total\$50,513,723

Second, that the actual investment, exclusive of loss to stockholders from lack of revenue subsequent to 1880, but inclusive of such loss prior to that date, amounting to \$5,671,000, would be from thirty-five to thirty-six million dollars. Third, that the cost of a complete substitutional system would be fully \$50,000,000. Fourth, that the value of the service limits the value to be placed on the property to forty or forty-five million dollars. Fifth, that a valuation of \$35,000,000 is too low to yield a proper income to stockholders. He therefore concludes that the works are worth from forty to forty-five million dollars for rate fixing purposes.

In coming to this conclusion his judgment was chiefly influenced by the idea that rates to consumers "should not be increased beyond a certain point in "pursuit of a sound public policy in the interest of "both the water company as well as the rate payers." He includes in this estimate the value of the going business at \$5,671,000. This sum he estimates is equal to the loss of income resulting from the failure of the business to yield current rates of interest on the investment from the beginning of the business until the year 1880. The value of the going business is thus measured by the deficiency of revenue prior to 1880.

Mr. Schussler, after examining Mr. Grunsky's estimates and plans, says that the proposed Tuolumne system will cost \$55,000,000. Excluding the cost of the receiving and distributing reservoirs and the city distributing system, he concludes that it will cost in round numbers to bring the Tuolumne water to San Fran-

cisco \$45,900,000. Deducting from this \$16,162,000, "the total cost of all the constructed works of the Spring Valley Water Company now gathering, storing and producing its water supply and conveying it to its distributing reservoirs, including the value of the Lake Merced property, minus the water rights to its outflow and also including the Millbrae and Belmont pumping properties," the balance, \$29,738,000, represents, according to Mr. Schussler, "the value of the entire combination of all the properties, reservoir sites, watersheds, and water rights of the Spring Valley Water Company in San Mateo, Alameda and Santa Clara counties, also including the water rights pertaining to the outflow of Lake Merced in San Francisco County." To this amount he adds \$26,431,000, the cost, as he estimates it, of reproducing the constructed works of the Company, including their rights of way, the value of the Lake Merced property and all the city real estate, including the pumping plants at Belmont and Millbrae.

Thus measured by the estimated cost of the Tuolumne system, Mr. Schussler finds the value of all properties and works of the Spring Valley Water Company to be \$56,000,000; subtracting from this \$4,500,000, his estimated value of properties not in use, he finds the value of the works combined now actively employed in supplying San Francisco with water to be \$51,500,000.

The five experts, Mr. Schussler, Mr. Schuyler, Mr. Hering, Mr. Adams and Mr. Stearns, agree that Mr. Grunsky's estimated cost of the Tuolumne scheme is

too low. Mr. Adams fixes the underestimate on iron pipe alone at \$5,468,000; Mr. Schuyler at \$6,426,000; Mr. Schussler and Mr. Hering at \$12,694,000. Mr. Grunsky has omitted interest during construction. This, according to Mr. Adams, would amount to \$5,468,000; according to Mr. Schuyler, \$6,741,615; according to Mr. Schussler, \$3,045,000; according to Mr. Hering, \$3,800,000.

The cost of iron pipe, one of the largest items entering into the construction of the proposed system, is estimated by Mr. Schussler for piping actually laid in the ground at 11 2-3 cents per pound; by Mr. Schuyler at 9 1-10 cents; by Mr. Adams at 8 8-10 cents, and by Mr. Grunsky at 6 8-10 cents.

Thus it appears that estimates on cost of the substitute system made by complainant's witnesses, range from \$50,000,000 to \$70,500,000. Estimates on cost of iron pipe vary from 8 8-10 to 11 2-3 cents per pound.

Estimates on present value of real property, measured in greater or less degree by cost of the Tuolumne scheme, are as follows:

Mr. Adams, between	\$17,000,000 and \$22,000,000
Mr. Hering	\$21,121,900
Mr. Schuyler	\$28,036,000
Mr. Schussler	\$29,738,000

And estimates of the value of the entire Spring Valley plant vary from \$40,000,000 to \$70,000,000.

A measure of value which leads to such various results when applied by the most competent engineers, is of little practical use. A very large portion of the value thus found for the Spring Valley plant is simply

a matter of expert opinion which disappears if Mr. Grunsky's estimate is correct.

The ordinance in question is presumed to be valid and to provide rates which will yield an income both just and reasonable. The respect due from courts to legislative bodies demands that such an ordinance shall not be lightly set aside. If invalid, its invalidity must be shown by evidence which is clear, certain and convincing.

In connection with these estimates, as well as the differing valuations made by the Company's officials at the rate investigation before the Board of Supervisors in 1901, when set against the values found by Mr. Grunsky, Mr. Dockweiler and Mr. Duryea, I cannot do better than quote the language of Mr. Justice Peckham in *Willcox v. Consolidated Gas Co.*, 212 U. S. 19.

"Where a large amount of the total value of a mass of different properties consists in the value of real estate, which is only ascertained by the varying opinions of expert witnesses, and where the opinions of the plaintiffs' witnesses differ quite radically from those of the defendants, it is apparent that the total value must necessarily be more or less in doubt. It, in other words, becomes matter of speculation or conjecture to a great extent."

In the 1908 case the court expressed itself thus, in relation to the cost of a substitutional system as a factor in fixing the value of the plant:

"Even if permissible, a valuation of the plant based on the estimated cost of the next available

substitutional system, is at best problematical. There may be other equivalent substitutes which are cheaper. We must reckon, not only with the uncertainties of the estimate itself, with the relative serviceability and permanency of the substitute system, with the relative quantity and quality of water which it is capable of furnishing, but also with undiscovered and overlooked elements which may greatly affect the cost. There is, however, a still more serious objection to this method of valuation. To say the value of the Spring Valley land and water rights for rate-fixing purposes is to be measured by the cost of the Tuolumne system, is to say that the price of Spring Valley water should be fixed by comparison with the cost of bringing water from Hetch Hetchy. The same method was applied to railroad charges when rates were based on the cost of hauling freight by mule teams, that mode of transportation being the next most available substitute.

The owner of private property sets the price at which others may buy or use it; he cannot be compelled to accept less; this is his right of contract, but when he devotes his property to public use, he must submit to the right of the public to regulate his compensation for such use down to what is just both to himself and to the public and that compensation is to be based, not on the cost of the next available substitute, but on a fair reasonable value of the property at the time it is used for public convenience. While the cost of a substitute system may be considered in finding the reasonable value of the Spring Valley plant, it cannot be a controlling element. Otherwise, by securing control of all available sources from which water can be brought to San Francisco, the company might

force a greatly exaggerated value upon its plant for rate-fixing purposes, and thus absolutely defeat the very object of government regulation."

Spring Valley Water Co. v. San Francisco, 165 Fed. 667.

Complainant's disapproval is thus stated:

"We submit that this announces the principle that appreciation in total value, due to the monopolistic feature growing out of the ownership of all available sources shall not be allowed, because the service is impressed with a public use, and that this item of valuation, inseparable from the whole, will be disregarded.

"We have previously demonstrated the error of this view. The property may be subject to rights in the public, but it continues to be a subject of private ownership. There has been an exercise of supervisory police power only—no element of value has been taken by the public, and subtracted from corporate assets, and when valuation is at issue, the element of monopoly, if it exists, has as much value in the case of a public as in the case of a private corporation. The very fact that 'water is a necessity of life' proves the value of its control. It must be given to the public, but that in no way lessens its value. The fact that all surrounding sources are in the hands of one corporation is an element of value accruing to the corporation, and not to the public. In other words, regulation extends only to use and income. It neither attempts to, nor does it in fact, lessen value. We believe that the court has failed to make this distinction. * * *

"There are no lands and no water rights within

fifty miles of the city which might serve to form even the nucleus of a waterworks to supply San Francisco with water. Nearly all such properties are owned by complainant, and, what are not owned by it, are in the ownership of other companies, actually serving communities with water.

* * * These circumstances, which are accurately stated from the city's own showing here, make it impossible to apply to the ascertainment of value of our real estate, outside of San Francisco, the method of valuation which would obtain if other properties existed in the same localities, and were available for the purposes for which ours are used. * * *

"The best guide for determining value is the necessary cost of acquiring similar property, capable of the same service, or what we conceive to be the same thing, the investment that will be required to enable one to render an equivalent service to that rendered by this company. * * *

What we do maintain is that value is measured by the cost of the most available adequate substitute.

* * * If water could be obtained of equal quality and quantity from other sources, the cheapest possibility would be the limit of value. * * *

The showing made is that San Francisco must have water. There is no intimation that she can get it cheaper than from the Tuolumne. The unqualified showing is that the Tuolumne is the most available system. * * * We do not say that the value of our plant is the cost of the Tuolumne system simply because it is the Tuolumne system, but that it is the value of the Tuolumne system because the Tuolumne system has been shown to be the cheapest and the most available. * * *

"I have never contended, and I do not now con-

tend that your Honor is compelled to take as the measure of value of this property what it would cost to bring a supply of water from the Tuolumne. I do claim, however, that one of the circumstances which you may and should take into consideration is what it would cost to render the same service to San Francisco that was being rendered in the year 1903 by complainant."

The quotations present in clear relief the real issue in this whole controversy. Having secured all available reservoir sites, water rights and watershed lands within fifty miles, the Water Company says to the City, you must have water, if you do not take ours you will be compelled to go to the Sierras for an adequate supply; it is the only available source, consequently our property for the purpose of determining what we are entitled to charge you for water, is worth as much as it will cost you to construct a plant which will bring an adequate supply from the Tuolumne. Your right to regulate does not extend to value. The rate-fixing body "has no discretion, absolutely none, in determining "value. To say that it has any discretion in determining value, is to say that it may whittle it to a point. "The only matter in which it has any discretion, if it "has any at all, is in the rate of return. It has no discretion even in that respect * * * to go below "the current rate of interest. * * * It must find "value as it exists."

Under this thin disguise it is easy to recognize the old and familiar doctrine that he who has a monopoly is entitled to charge what the traffic will bear. But instead of applying the principle directly to rates, it is

here used to elevate the value, which is the most important factor in fixing them.

The purpose and design of the law which provides for public regulation of water rates, was and is to regulate the charge for services like those rendered by complainant down to what is just and fair and reasonable as between the person performing and the person receiving the service, and to cut off all above that which represents, not the reasonable worth of the service, but the power which flows from unrestricted control of the sources of supply and the means of distribution.

Complainant insists that reproduction cost and substitutional cost are equivalent terms, and that it is illogical to apply this method to the determination of the value of structural portions of the plant, and deny its application when determining the value of lands and water rights.

In *Consolidated Gas Company v. City of New York*, 157 Fed. 849, 854, the value fixed was "what it would cost presently to reproduce each item of property (including real estate) in its present condition, and capable of giving service neither better nor worse than it now does."

Reproduction value was there considered to be the same thing as present value, properly considered. In that case there was a question as to the vast appreciation in value of land on Manhattan Island, due to causes which affected all New York realty alike, and whether the company was entitled to the benefit of such appreciation; but there was no question as to monopoly value of any portion of the plant. If the Gas Company

had secured every available site and all facilities for manufacturing gas, not only within the city but within fifty miles thereof, there would have been presented the unique question which confronts us here. The most striking characteristic of monopoly is its tendency to render reproduction by people other than itself, difficult and impossible. If the Spring Valley Water Company had the same control over lumber, steel, iron and other materials used in construction which it has over the sources from which water can be obtained, there would probably be much dispute as to whether reproduction value of structures is the same thing as present value properly considered.

As was said in the 1908 case, complainant acquired its water rights, reservoir and watershed lands, and devoted them to public service under a law which permitted, and now requires, public regulation; and many of them were acquired after the adoption of the constitutional provision:

“The use of all water now appropriated, or that may hereafter be appropriated, for sale, rental, or distribution, is hereby declared to be a public use, and subject to the regulation and control of the state, in the manner to be prescribed by law.”

What complainant did was done with open eyes. Under the law it was entitled to no more than a fair return, not upon the monopoly value, but upon the reasonable value of the property at the time it was being used for the public.

It is impossible to consider the constant use of the word “fair” or the word “reasonable” in connection

with value by all the federal courts and the courts of this State in practically every recent statement of this rule, without feeling that regard must be given to the service performed by the property; that reasonable value and fair value are not always and under all conditions the precise equivalent of full actual value, or the value which would be awarded in condemnation proceedings; that the value upon which a fair return is due is the value which under all the circumstances is reasonable and fair as between the public and the person who has voluntarily devoted his property, or some portion or use thereof, to public convenience.

In *San Diego L. & T. Co. v. National City*, 174 U. S. 735, 757, it is said that a fair return to which the owner of such property is entitled cannot always be based "upon the total amount invested, because some "portion of that which is acquired by the investment "may be neither *necessary or presently useful* for the "public service." But the fair return is to be based "upon the fair present value of that which is used for "the public benefit *having due regard always to the "reasonable value."*

San Francisco should pay what is reasonable for the service rendered. It should pay for what it receives; it should pay for no more and no less. It is unreasonable to require payment for a service which is neither rendered nor received. It is equally unreasonable that the company should expect payment for water which it does not deliver; or for the use of property which was neither used nor useful in producing, gathering, storing, protecting or distributing the water which was delivered to the people of San Francisco between June

30th, 1903, and July 1st, 1906, the period to which our inquiry relates. As to this there is and can be no dispute.

The average daily consumption is about 33,500,000 gallons; the daily capacity of complainant's plant is 35,000,000 gallons, but it is alleged that with additional dams and aqueducts complainant's plant will be capable of supplying San Francisco with more than 110,000,000 gallons per day. In other words, the plant is sufficient with reasonable development, to supply the needs of San Francisco when she has a population of two million.

The company has looked ahead for fifty years; it has invested wisely and judiciously; it has a great property; but it does not necessarily follow that the water rates in question are confiscatory because they fail to yield an income of seven, or six, or even five per cent on the full value of this property.

On the western slope of the Peninsula there are lands and water rights owned by the company which, if developed, would yield 18,000,000 gallons of water per day, but none of this is used for San Francisco.

The Portola Reservoir near Palo Alto spreads over 340 acres of a 923-acre tract owned by the company. It is estimated that this source alone will ultimately yield the company more than 7,000,000 gallons of water per day. This property has been valued by Mr. Schussler at more than \$500,000.

At Coyote Creek there are.....	11,300	acres
At Ravenswood, about.....	1,900	"
At Locks Creek.....	1,500	"
In Arroyo Valle.....	4,421.8	"

There are extensive tracts of land in Alameda County, in San Benito County and at Clear Lake. From 1899 to 1903, the company paid more than \$142,000 for lands in Santa Clara County. In the City of San Francisco the company owns the Market Street reservoir tract, containing 12-50 vara lots; the Industrial School reservoir tract of 42 acres, and the Lobos Creek property, valued by Mr. Baldwin, a witness for complainant, at \$281,300, \$126,600 and \$66,665, respectively. It is unnecessary to mention more. The company admits these properties are not used in supplying San Francisco with water, and that these with other properties, now gone out of use or never in use, originally cost \$2,523,625.75. Defendants claim the original cost of such property exceeds \$4,600,000.

The Calaveras, San Antonio and Arroyo Valle reservoir sites present another phase of the same question. By constructing dams on each of these sites, and by adding to the height of the Crystal Springs dam, Mr. Schussler says the present storage capacity of the company can be increased from 28 billion to 100 billion gallons, and the daily output from 35 million to 100 million gallons. "This increase", he says, "can easily be developed gradually, economically, step by step, as the demand for water in San Francisco increases during the first half of the present century."

The Calaveras, San Antonio and Arroyo Valle sites, with adjacent territory, amounting to more than 18,000 acres, are apparently more or less useful at the present time, with the exception of 4,421.8 acres in Arroyo Valle. They are useful, however, only as water-bearing properties.

For ten years or more some 2,700 acres of the Calaveras watershed and reservoir lands have been rented to tenant farmers for orchard and grain raising, at an annual rental which has been as high as \$5,900.

With the filter beds at Sunol and the wells at Pleasanton these 18,000 acres enable the company to draw from the entire 600 square miles of watershed an average of but 15,000,000 gallons of water per day.

The Crystal Springs dam was constructed of sufficient thickness and strength to support an additional height of 30 feet. This addition, if made, will bring into use as water-covered land 430 acres which are now watershed. Defendants claim that the area of this "dam is twice as large as experience with other similar structures shows that it is required to have been", and "that portion of this structure which is not presently useful represents a sum of at least \$500,000."

There is nothing in evidence tending to show that any addition to the Crystal Springs dam was contemplated before 1903, or that the 430 acres differ in any respect from other watershed areas owned by the company, save in the possibility of being covered by water at some time in the remote future.

The present service of the above-mentioned properties, therefore, is but a small fraction of the duty which they could render with easy development. How then, are these properties to be valued? If San Francisco were seeking to acquire them for a municipal water system, under the law of eminent domain the price fixed would be the value of the property for the most advantageous uses to which it could be applied. ~

This rule has been enunciated most clearly in *Boom Co. v. Patterson*, 98 U. S. 408. In that case the defendant owned in fee an island and parts of two other islands in the Mississippi River. The possession of the islands fitted them, in connection with the west bank of the river, to form a boom of extensive dimensions, capable of holding with safety from 20 to 30 million feet of logs. For such a use the Boom Company sought to condemn the islands. The jury assessed their value at \$9,358.33 for boom purposes, and the value for any other purposes aside from boom purposes, at \$300 only. The court sustained a final judgment in the sum of \$5,500 in favor of the owner of the islands, declaring that the adaptability of the property for boom purposes was a proper element for consideration.

In a condemnation proceeding, therefore, the examination of value could not be restricted to the water-bearing capabilities of the reservoir sites, but inquiry would be made as to any and all uses for which the lands are suitable, including their fitness for reservoirs. This, however, is no more than just, because in such case the condemning party would take the whole value of the property and every use to which it is adapted, as well as all future appreciation in value. All would be taken and all should be paid for.

If the properties are to be considered separately, it is strenuously urged that the rule in eminent domain is the only safe, sane and absolutely reliable guide for ascertaining value for rate-fixing purposes; "considered separately, each is useful to the extent of its value for any and all purposes, unless its inclusion

“ at that price would result in a valuation that would place an insupportable burden upon the consumers.”

In this connection it is suggested that property once devoted to a public use must continue in that use so long as it is useful, and that much of the property of this company will continue useful for all time.

The constitution of California forbids the passage of any act by the Legislature relieving the property of a public service corporation from the duty it was intended to perform. The constitution was adopted and ratified in 1879. The Alameda property was not employed in supplying San Francisco with water until 1887 or 1888, when the first water was taken across the Bay. If the company then devoted to the mere catchment of water lands which were immensely valuable for reservoir purposes, knowing that there was no immediate need for reservoirs thereon, it certainly did so with its eyes open.

There is to my mind a wide difference between the situation of the owner who is required to give up his property at a valuation fixed in condemnation proceedings, and the situation of the Spring Valley Company in this suit. The former has no option as to what shall be taken; no choice as to quantity, price or time. His property and all its uses are appropriated, whether he will or not. The complainant here was under no such constraint; it followed its own judgment, and largely consulted its own interest in determining what property it would acquire for San Francisco's water supply, and when. It retains exclusive ownership, possession and control, save only in this, after it has once applied

a piece of property to this purpose, it is not at liberty to withdraw it or to apply it to any other uses, so as to diminish the quantity, or impair the quality of the water necessarily used by and delivered to the city and its inhabitants. If the land produces crops of hay or grain, if it grows timber, if it contains coal, iron, or any valuable deposits, these all belong to the company. The city has no right to cut a spear of grass, to remove a stick of timber, or mine a pound of coal; but all this may be done by the company if it can be accomplished without detriment to the city's needed water supply. The city's interest in the property is no larger than its right to receive therefrom its necessary supply of pure water in return for a reasonable compensation.

Mr. Justice Holmes says in *San Diego L. & T. Co. v. Jasper*, 189 U. S. 439, 446:

"If a plant is built, as probably this was, for a larger area than it finds itself able to supply, or, apart from that, if it does not yet have the customers contemplated, neither justice nor the Constitution requires that, say, two-thirds of the contemplated number should pay a full return."

In *Water District v. Water Co.*, 99 Me. 371, 376, Mr. Justice Savage uses the following illustration:

"Suppose that a five-hundred horse power engine was used for pumping when a one-hundred horse power engine would do as well. As property to be fairly valued, the larger engine might be more valuable than the smaller one, yet it could not be said that it would be reasonable to compel the public to pay rates based upon the value of the unnecessarily expensive engine."

In *Consolidated Gas Co. v. City of New York*, 157 Fed. 849, 857, Judge Hough excluded from the valuation the present worth of leased, vacant and unimproved lands to the amount of more than \$2,000,000, because they were not then in use.

In *Southern Pacific Co. v. Bartine*, 170 Fed. 725, 767, the court declared:

"If a railroad is built into a new and sparsely settled territory, with a view of serving a large future population and developing business, the Constitution does not require the few people and the small business of the present time to pay rates which will yield an income equal to the full return to be gathered when the country is populated and business developed to the full capacity of the road."

To the same effect see:

Beale & Wyman on R. R. Rate Reg., secs. 343, 344, 462;

Capital City Gas Light Co. v. Des Moines, 72 Fed. 829, 844;

Boise City Irr. & L. Co. v. Clark, 131 Fed. 415.

The value of property is the value of its uses. If but half complainant's land is used, a return on that half only should be exacted. The value of that half would be the reasonable value of the property in use. If complainant's land is susceptible of two equally advantageous uses, each of which may be exercised without detriment to the other, and only one of them is taken for the public, half the value of the property again would be the reasonable value of the property

in use. When watershed lands are used for grain raising, under proper restrictions, neither use materially interferes with the other. So, also, lands may be employed at the same time both for water production and water storage. Neither use excludes the other.

In *Long Branch Com. v. Tintern Manor Water Co.*, 62 Atl. 474, 480, a much larger reservoir site was provided by the company than was or would be necessary for many years to come. The original plans provided for a very large reservoir, including a high dam; but in carrying out the plans a lower dam was adopted, and but one-third to one-half the land was covered with water. The court deducted from the total value of the land about one-third. A dam was constructed at a cost of \$89,500, of sufficient width to sustain one two or three times its height. The court deducted \$30,000 for excessive cost of the dam. It appeared also that a 36-inch main was used when a 30-inch main would have been sufficient to perform the service required. This main, eight miles in length, cost \$300,000. The court deducted \$75,000.

In this case the company purchased the Calaveras, the San Antonio and the Arroyo Valle reservoir lands, and devoted them to public service years in advance of any possible necessity for the construction of reservoirs thereon to meet reasonable demands of San Francisco.

My attention has been called to no law which could have been successfully invoked against complainant had it constructed a reservoir on the Calaveras site in 1888, and thereafter sold the surplus product above

what was being sent to San Francisco to other water users, during the fiscal years 1903-4, 1904-5 and 1905-6. Had the company pursued such a course the propriety and justice of an apportionment of the total value of the lands as between the two users would be apparent.

In cases where the issue is the reasonableness of freight rates fixed on the intrastate business of a railroad which is doing an interstate business as well, a physical segregation of the property into the two classes is impossible, because substantially the entire property of the railroad in the state is employed for each service. Yet in such cases the courts have never hesitated to apportion the total value of the railroad as between the two classes of traffic. The fact that reservoir lands have never been used for reservoir purposes cannot vary the application of the principle, the city never prevented such a use.

The justice of this is obvious. While the company should be in advance of the present demand, and provide for emergencies, for growing population, for unusual droughts, and for extraordinary conflagrations, it should not be too far in advance. If property is to be included in a valuation for rate-fixing purposes, it must be shown to be either presently useful, or to be necessary for wants which are near at hand. If the rule were otherwise, the public might be called on to bear the burden of the company's investments in addition to paying a reasonable price for the company's service.

The courts are always open. Such lands can always be condemned, reservoirs constructed and connected

with the system within a reasonably limited time before they are needed.

If the Spring Valley Water Company in pursuance of its very evident policy to secure control of all near-by sources has purchased reservoir lands and secured water rights years in advance of any actual need, while prices were low and such properties were to be had at what they were worth for agricultural and grazing purposes, it was a very wise investment, but it was not public service. It might be otherwise if the city dictated these purchases, but it does not appear that such was the case. On the contrary, the company has acted entirely on its own judgment in making these acquisitions. Both in argument and testimony it is frequently asserted that the city has thus been saved a great deal of money. However, the saving to the city is not by any means so apparent as the profit to the company. The company asks years in advance of any reservoir use, not only an income on the cost of such lands, but on their reservoir value. Thus the company is not only asking the city to carry its very wise investment, but also to pay for services which are not rendered. Some of these unused reservoir sites were purchased 25 years before this litigation was commenced; and even now there is no evidence of any intention to build reservoirs or increase the height of the Crystal Springs dam within a reasonably immediate future. The next contemplated development to meet the city's increasing need for water, according to the chief engineer of the company, is to be on the artesian lands near the south end of the Bay. When in the future reservoirs are con-

structed and in use, the lands will be valued for rate-fixing purposes at their full value, the value at which they could be acquired at that time in condemnation suits. There is no assurance that the company will then claim anything less than the highest value of the land, or that anything will be abated therefrom because the city during many years may have paid the reservoir value of lands while it was receiving only such watershed service as the lands could render after they had been cropped by the company's farmer tenants.

I cannot recede from the position taken in the 1908 case: If the company voluntarily devotes to the mere catchment of water, lands which are much more valuable for other purposes, it is unreasonable in fixing rates to appraise such lands for more than they are worth as watershed areas.

Spring Valley Water Co. v. San Francisco, 165
Fed. 667, 698.

True, these lands have appreciated somewhat, but there is no evidence that they have been wanted for other uses more valuable than the present, or that San Francisco has any present need of them for residential purposes. Their enhanced value, if any, is a prospective value, which comes in anticipation of the fact that some time in the more or less distant future they will be needed for reservoirs, or for some other utility.

There are now all told in the Peninsula system 18,859.94 acres. This land, including the water rights, was originally purchased for \$1,231,139.23, or an average price per acre of \$65.278. The Pilarcitos lands,

3,919.47 acres, were purchased at an average price of \$17.77. The highest priced lands were in the Crystal Springs tract; there 8,614.66 acres were purchased at an average price of \$110.56.

Of the land in this system 1880 acres are now occupied by and used for reservoirs. The balance will be valued as watershed land merely. These lands for the most part are suitable only for grazing, and to a small extent for farming. The soil is poor, the land rough and hilly.

Of these watershed lands Mr. Grunsky says:

"The lands in the watershed, though it is desirable that they be owned by the Water Company, are not as essential features of the works as the water rights and the reservoir sites. They could be acquired by purchase from time to time at but little more than the value which they have when used for the same purposes for which other similar lands in the same vicinity are used. These lands are for the most part suitable for grazing, to some extent for general farming. Fifty dollars per acre would be a liberal average to place upon them."

23,399.58 acres are included in the Alameda system. This land, with water rights, reservoir sites and rights of way, including rights of way in San Mateo County,

cost	\$2,451,030.33
The rights of way cost.....	37,547.55
Water rights	296,763.87
Lands	2,161,718.91

The Arroyo Valle lands cost \$39.93 per acre. 973.97 acres on Laguna creek cost \$239.63 per acre. And

14,213.23 acres on San Antonio creek cost \$38.86 per acre. 7,329 acres on Calaveras creek, with water rights, cost \$171.18 per acre. Some 2,700 acres of the Calaveras lands, including a large portion of the reservoir site, were rented to tenant farmers for grain and fruit raising. The annual rental in 1903 was \$4,512, and in 1904, \$4,262. For four years prior to 1903 the rent was \$5,972. The annual rental for 1903 is equivalent to a 5 per cent income on \$90,240. This amount will be considered in appraising the Calaveras lands.

The reservoir site lands, 1,880 acres, are valued at \$1,000 per acre; and the watershed lands, 40,379.52 acres, at \$100 per acre, making a total, after deducting the \$90,240, of \$5,827,712, the present value of the reservoir and watershed lands.

In the water rate investigation of 1900-1 before the Board of Supervisors, Mr. Schussler testified as follows:

"The combined surfaces of the reservoirs in San Mateo county is 2,340 acres, valuing this at only \$1,000 an acre that makes the valuation of those basins, exclusive of the dam construction, \$2,340,000. The watershed that sheds into that, of which we own, outside of the reservoir sites, about 17,300 acres, at \$100 an acre, makes the watershed worth \$1,730,000. The water rights in San Mateo county which should properly be charged into it at cost is in the neighborhood of \$600,000. That makes for the reservoir site, the watershed and water rights in San Mateo, at a very low estimate, a value of \$4,670,000. The Alameda creek property has a reservoir site of 1,350 acres, and valuing

this at only \$1,000 an acre makes the reservoir worth \$1,350,000. In addition to that there are 3,800 acres of watershed, at \$100 an acre, and that makes \$380,000. Then the water rights that belong to the system all the way down the Alameda creek from Vallejo Mill to the bay, are worth in the neighborhood of \$1,000,000 at present, making a total for the Alameda creek system of \$2,730,000.

* * * Q. I will ask you are these figures which you put upon the reservoir acreage and drainage acreage reasonable? A. Yes, they are very reasonable. You could not buy them today, except in a few instances, you might buy them for a little less, but we not very long ago purchased the right of 118 acres, which had only five acres in the reservoir and the rest in the watershed, and we paid about \$1,000 an acre for the five acres and \$10,000 for the remaining 113 acres, making it practically about \$100 an acre for the watershed. Q. Are those the present values, as I understand it? A. Yes, sir."

Mr. Dockweiler estimates the lands and water rights in the Alameda and Peninsula systems at \$5,823,675. Mr. Grunsky's estimate, made January 30th, 1903, was \$5,959,164. Both Mr. Dockweiler and Mr. Grunsky included in their estimates a reservoir value for reservoir lands not in use as such.

No question has been raised as to the propriety of including water rights among the properties to be valued, upon which complainant is entitled to a return in the water rates. The only difference between the parties is as to the proper valuation.

The valuations per million gallons of daily delivery,

fixed by the experts, range from \$40,000 to \$150,000. The elevation of the Peninsula reservoirs adds to the value of those water rights; while the fact that the entire output from Lake Merced and the Alameda system, constituting more than one-half of the entire water supply, must be pumped practically from the sea level, detracts materially from the value of those rights. It must also be remembered that such rights as complainant has to the subsurface flow, and to the flood waters of Alameda creek and San Mateo creek, have been acquired, and their acquisition made possible, only by the purchase of high priced lands, and the erection of costly structures, all of which receive an independent valuation. Obviously such a water right, when considered in connection with the cost of lands and structures, and the expense of filtering, pumping from artesian wells, and protecting with drainage systems, is of much less value than if the pure water could be taken from a living stream by means of a simple diverting dam, and delivered by gravity.

The average daily amount of water used in San Francisco in 1903-4 was about 33,000,000 gallons. During the summer months there were days when the consumption was much higher.

For the water rights used in supplying San Francisco, considering all the circumstances, \$2,100,000 seems a very liberal allowance.

Mr. Schussler estimates the aggregate length of various rights of way owned by the company at fifty miles, and their value at \$500,000. So far as the record shows these rights were purchased for about \$79,000,

and many of the purchases were of recent date. For instance, in 1902 a strip 33 feet wide and three miles long, together with a small tract at the edge of the bay, was purchased of the Dumbarton Land Company for \$11,000. At Millbrae, in November, 1898, a right of way from the pump to the bay, 1250 feet in length, was purchased for \$625, or 50 cents per foot. April, 1902, a right of way 1980 feet in length, was bought from the University of California for \$1,374.80, or 69 cents per foot. Including the three - mile right of way above mentioned, there is a record of 22,933 feet bought in Alameda county for rights of way in 1898 and 1899 at an aggregate price of \$19,131.75, or 83 cents per foot.

Testimony as to the length, location and character of the various rights of way is exceedingly meager, and wholly insufficient to support a valuation in excess of \$200,000.

As I have already stated, the Lake Merced property consists of 2730 acres, of which 1,903 are in San Francisco, and the remainder in San Mateo county. The lake covers 400 acres of that portion of the tract which lies in San Francisco; it has a storage capacity of 2,500,000,000 gallons, and an average daily production of 3,000,000 gallons. A pumping station on the shore of the lake is capable of forcing this water into the city at the rate of 7,000,000 gallons per day. Increasing population in the neighborhood renders it more and more difficult to guard the water from pollution. In 1879 Mr. Schussler testified that it was "very poor water." An extensive drainage system constructed since

that date, now serves to convey to the ocean objectionable surface waters which otherwise would naturally flow into the lake. Still there is some question as to the quality of the water. Mr. Grunsky testifies that the "water cannot be safely used without filtration." However this may be, the lake is unquestionably the least desirable of the several sources of supply owned by the company. It is valuable as a ready-made reservoir and near-by storage, available in cases of emergency, and is therefore a necessary and useful part of the system. The lake itself is fed from innumerable springs in its floor and on its margin. The value of the adjacent lands lies in the fact that their possession enables the company to hold contaminating agencies at a distance from the water.

Mr. Baldwin, whose qualifications as an expert on real estate values in San Francisco are conceded, appraises this property at \$13,650,000, or \$5,000 per acre. Mr. Grunsky, at \$2,030,000, or \$743 per acre; Mr. Dockweiler at \$2,831,500, or \$1,035 per acre. In 1901 Mr. Schussler testified that the property was worth \$3,700,000, or \$989 per acre. In December, 1904, in this case, his estimate was \$4,095,000, or \$1,500 per acre. Mr. Baldwin bases his valuation on the assumption that the tract can be divided into lots, and sold for residence purposes. In support of this he cited the Parkside property, then being sold in subdivisions of 25 by 100 feet at from \$800 to \$1200 each. The witness was confident that the whole property could thus be disposed of in San Francisco and elsewhere within a reasonable time. Neither Mr. Dockweiler nor Mr. Grunsky qual-

ified as experts on real estate values. Mr. Grunsky based his figures on information obtained from two San Francisco real estate men. It is insisted by complainant that the only competent evidence as to the value of the property is that of Mr. Baldwin. To this I can hardly yield my assent. And as to Mr. Baldwin's testimony this observation may be made: In this case we are dealing with values as they existed, and conditions as they were during the years 1903, 1904 and 1905. Testimony showing how many building lots a tract can be divided into and what such lots could be sold for separately has frequently been held inadmissible in condemnation proceedings. Such testimony is too uncertain and speculative.

Martin v. Chicago & Milwaukee Elec. Ry., 77 N. E. 86, 88;

Gorgas v. Philadelphia, etc., R. R. Co., 114 Am. St. Rep. 974.

In *Railroad Company v. Cleary*, 11 Am. St. Rep. 913, 916, the court says:

"The jury are to value the tract of land, and that only. They are not to determine how it could best be divided into building lots, nor conjecture how fast they could be sold, nor at what price per lot. A speculator or investor in deciding what price he could afford to pay would consider the chances and probabilities of the situation as then actually existing. A jury should do the same thing. They are not to inquire what a speculator might be able to realize out of a re-sale in the future, but what a present purchaser would be willing to pay for it in the condition it is now in."

If we fix the value of the whole plant, producing 35,000,000 gallons per day, and the value of the entire service performed, by comparison with Mr. Baldwin's valuation of the Merced property, the daily output of which is but 3,000,000 gallons, the result is startling. If property which produces 3,000,000 gallons is worth \$13,650,000, property producing 35,000,000 gallons per day would be worth \$159,250,000.

If, as complainant contends, it is entitled to a 7 per cent return on the value of its property, above operating expenses and taxes, it should collect for 3,000,000 gallons daily output from Lake Merced on Mr. Baldwin's valuation of that property a gross income of \$1,025,107.67, or \$936.17 for each million gallons of water delivered. So far as the record shows, the highest price paid elsewhere in the United States is \$193.03, in Brockton, Mass. Portland, Ore., pays but \$44.91, and Los Angeles but \$81.22 for the same quantity of water. Such a valuation would result in the imposition of an insupportable burden upon the rate payers of San Francisco.

The actual cost of the entire Lake Merced lands was \$697,593.60, or \$255 per acre. The water rights cost \$150,000. The most recent purchases were 22.8 acres, known as the Gum Forest, bought April 14th, 1904, for \$41,000, or \$1,800 per acre; 72 acres, known as the Osmont tract, bought January 19th, 1905, for \$70,000, or \$972 per acre; and 55.7 acres, known as the Brooks tract, bought on the same date for \$41,827.50, or \$750 per acre. The Gum Forest fronts on the Ingle-side road on the east side of the property, and is there-

fore nearest the city. The Osmont and Brooks tracts are in the watershed, and between the south arm of the lake and the ocean. The average price for this 150.5 acres was \$1,015.

Complainant insists that these transactions, as evidence, have no probative value, because the Water Company was in a position to force the sales under the law of eminent domain, and consequently the owners were not willing vendors. Testimony of this character when offered has usually been rejected upon the theory that the parties in making the sale and fixing the price were not acting with entire freedom. The purchaser in most instances must have the particular property, and the vendor can sell to no one else; if they fail to agree on the price, it is fixed by some tribunal appointed by law. Such a sale would be compulsory, and such a situation likely to induce one party or the other to recede from his just demands. The rule, however, is not without its exception.

In *Presbrey v. Old Colony & Newport Ry. Co.*, 103 Mass. 9; and again in *Seaboard Air Line v. Chamblin*, 108 Va. 42, it was held that "where the transaction is "free from such consideration so that it may fairly be "regarded like an ordinary sale between seller and "purchaser, the evidence would be competent."

In the more recent case of *O'Malley v. Commonwealth*, 182 Mass. 196, the court went still further. In that case an exception had been taken to the admission of evidence as to a sale to the Metropolitan Water Board. In overruling the exception Mr. Justice Holmes, then Chief Justice of Massachusetts, said:

"The exceptions show none of the circumstances, nothing beyond the bare fact of the sale. We cannot say merely because of the name of the purchaser that the sale was not a fair transaction in the market, rather than a compulsory settlement. The Board has power to purchase as well as to condemn land."

The value sought to be ascertained in condemnation proceedings is the market value; that is, the price which property will bring when it is offered for sale by one who desires to sell, but is not obliged to do so, and is bought by one who is under no necessity of having it.

2 Lewis on Eminent Domain, Sec. 706.

So far as the evidence here shows, if complainant had needed these lands in the performance of its duty to supply water to San Francisco, it was a need which had been equally insistent for more than twenty-five years.

The water product of these lands is drained into the ocean. Five weeks before the sale of the Gum Forest, Mr. Brooks, "Land Agent" of the Water Company, was authorized by resolution of its Board of Directors to purchase the property at a price not to exceed \$1,250 per acre. The fact that the price finally fixed and paid was \$1,800 per acre, indicates an ordinary and not a compulsory sale. It does not appear that any condemnation proceedings were threatened or even contemplated. Aside from the fact that complainant is a public service corporation, entitled to exercise the right of eminent domain in a proper case, there is noth-

ing which indicates that either sale was forced or compulsory. Furthermore, before any one of the tracts mentioned could be appropriated under the law of eminent domain, it was necessary for complainant to show that the taking was reasonably necessary for the purpose of supplying San Francisco with water.

In *Spring Valley Water Works v. San Mateo Water Works*, reported in 28 Pac. 447, there was an attempt to condemn 28 acres on the Crystal Springs watershed; the court held that the mere fact that the taking of the property in question "would be a great convenience" to the Water Company, would "enhance the value of "its property", and also "secure a fuller water supply to the inhabitants of San Francisco", was not sufficient proof of necessity to justify the taking of the property.

If the rule in that case be applied here, it is not quite clear that condemnation proceedings, delayed a quarter of a century, could have been successfully resorted to against the Gum Forest or the Osmont or Brooks tracts.

Finally, complainant having itself introduced the only testimony showing the date of each sale, its actual consummation and the price paid, in order to show its total investment in the Lake Merced property, cannot now be heard to object to its consideration.

Seaboard Air Line v. Chamblin, 108 Va. 42, 50.

Evidence of actual, contemporaneous sales of portions of the very property in question, seems to me to be useful, and to afford a valuable guide, where the opinions of the experts are so irreconcilable. The average price paid by the company for the three tracts

is \$1,015.45 per acre. This price probably exceeds the full value of the lands as factors in supplying water, but falls short of a proper estimate for the water covered territory.

Rents collected from tenants occupying portions of the Lake Merced ranch amount to \$1,495 per annum. This is equivalent to a 5 per cent annual income on \$29,900, and will be considered in the appraisalment.

A valuation of \$3,412,500 seems to be reasonable for this property, and that amount, less \$29,900, or \$3,382,600 will be allowed.

OFFICE BUILDING.

Various appraisements of the office building (corner of Geary and Stockton streets) are as follows:

Mr. Baldwin	\$900,000
Mr. Dockweiler	858,734
Mr. Schussler and Mr. Grunsky.....	750,000.

The gross income from this property, counting Spring Valley occupancy at \$12,000, is \$46,380 per annum. The average net annual rental of the property from June 30th, 1903, to December 31st, 1905, is \$34,732, or a 5 per cent income on a valuation of \$694,640. 25.8 per cent (the ratio between \$46,380 and \$12,000) of this valuation, or \$179,217. should be included among the values on which the company is entitled to a return in water rates. Five per cent rather than 4 per cent is taken because the higher rate is used against defendants in other calculations.

The value of the property not in use is \$515,423.

GOING BUSINESS.

The fact that complainant's plant is in actual operation, in other words, that it is a going business, is an element of value. It is obvious, as Mr. Justice Brewer says in *National Water Works v. Kansas City*, 62 Fed. 852, that the "mere cost of purchasing the land, constructing the buildings, putting in machinery and laying the pipes in the streets, in other words, the cost of reproduction, does not give the value of the property as it is today."

The difficulty here is to ascertain what value attaches to the business as a going concern. Mr. Schuyler and Mr. Adams, two of complainant's witnesses, consider the value of this element to be equal to the cost of establishing the business. This is assumed to be the difference between the income which the Company should have received, and the amount which it did actually collect from water rates prior to the time when the plant became a paying concern; in other words, the deficiency in revenue prior to 1880. It is claimed that the amount which should have been received is equal to the amount of interest which would have been earned, prior to 1880, by the same money at contemporary current rates. Thus fixed, this element is worth more than \$5,000,000.

"This estimate is open to the objection that the deficiency of revenue may have been due to extravagant or wasteful management. The company may have purchased a plant larger and more expensive than necessary; current rates of interest may have been abnormally high; many causes

which have absolutely no relation to the value of the company's business now as a going concern, may have increased or diminished the deficiency in revenue. Furthermore, if it be conceded that early deficiency of revenue is the proper measure of value for the present going business, then it follows that, the greater the deficiency and the more unprofitable the business, the greater the present value of the going concern; and, if the business had yielded large profits from its very inception, the going business today would be worthless."

Spring Valley Water Co. v. San Francisco,
165 Fed. 657, 696, 697.

Counsel for complainant suggest that "an economically sound appraisal" of this element is found by ascertaining the total probable net income of the Spring Valley Water Company during such period as would be required to construct the Tuolumne system, and adding thereto interest during the period of construction covering the same time.

Of this method of valuation it may be said that the length of the period of construction depends on the efficiency and celerity of the contractors. The earnings of the company depend on the Board of Supervisors. And among all the many factors which would enter into such a computation, probably not a single one can be fixed with any degree of certainty.

Mr. Grunsky thinks the value due to the fact that the company has an established business, should be appraised at "about 25 per cent of the valuation of "its city distributing system, or \$1,400,000." Of this

amount he also says it "is substantially an allowance " for contingencies, omissions, and the like." This also seems to me to be an arbitrary method, having little or no relation to the real value of going business.

Mr. Hering, a witness for complainant, says that as the cost of establishing a business "has been or should " have been covered by the schedule of water rates: " further allowance at the end of the term would then " be its duplication."

In a report to the North Pasadena Land & Water Company, Mr. Schuyler suggests this value could be taken care of fairly by offsetting it against a portion of the depreciation.

Probably nothing further is needed to demonstrate, for this case at least, the utter futility of attempting to establish a separate and distinct valuation for going business. The burden was on complainant if it wished such an independent valuation, to produce the evidence on which it could be based; but no such evidence has been called to my attention.

In *Contra Costa Water Co. v. City of Oakland*, 113 Pac. 668, 676, it was contended, as here, that this valuation is measured by deficiencies of income prior to the time the business was brought to a paying basis. The Supreme Court was of the opinion that early losses " had no relation to the question of present value, and " offered no basis for any valuation." And finally they dismissed the subject with these words: "In what we " have said we do not desire to be considered as deciding that in the matter of fixing rates anything at " all should be added to the value on account of the " element of going concern."

I shall consider the fact that complainant has an established business, not by fixing a definite value therefor, but along the lines suggested by the sound and practical utterances of Judge Savage in *Brunswick Water District v. Maine Water Co.*, 59 Atl. 537, 539:

“We speak sometimes of a going concern value as if it is or could be separate and distinct from structure value—so much for structure and so much for going concern. But this is not an accurate statement. The going concern part of it has no existence except as a characteristic of the structure. If no structures, no going concern. If a structure in use, it is a structure whose value is affected by the fact that it is in use. There is only one value. It is the value of the structure as being used. That is all there is to it.”

The good will of complainant will not be considered as a proper element for valuation in this proceeding. Good will rests on the probability that customers as a matter of personal choice, will continue to trade where they have been doing business. Here there is no such choice. They must take water from the Spring Valley Water Company or go without.

Willcox v. Consolidated Gas Co., 212 U. S. 19,
21, 52;

Contra Costa Water Co. v. City of Oakland,
113 Pac. 668, 676.

FRANCHISE.

The right to collect rates for the use of water supplied to any city and county, or the inhabitants thereof, is declared by the Constitution of California to be a

franchise, and by the same instrument a franchise is declared to be property.

In the 1908 case it was held that complainant's franchise should be included among the properties on which complainant is entitled to a return, at whatever reasonable value it is shown to have. Obviously complainant's plant is much more valuable with than without a right to collect water rates, yet if it is to be regarded as more than a characteristic of the property, it should somewhere and somehow manifest a distinct productive efficiency, by earning profits above and in addition to what is but a fair return for the use of the physical properties composing the plant. This, however, has not been shown. According to Mr. Schuyler and Mr. Adams, prior to 1880 the income of complainant and its predecessors fell by more than \$5,000,000 short of an adequate income on the moneys actually invested. Since that date, according to Mr. Adams, the interest on the company's indebtedness, added to the dividends paid stockholders, amounted to no more than enough to yield an average of 4 per cent on the cost of the plant, with no allowance for depreciation. It thus appears that there never has been, above a scant return on the investment, any income which could be attributed to the earning power of the franchise.

Complainant insists, however, that it is entitled to a valuation on franchise value, because in 1863 the Spring Valley Water Works acquired from George H. Ensign and others, a franchise to furnish San Francisco with water. The consideration, \$182,000, was

paid in stock of the company at par. Two years later the Spring Valley Water Company took over all the property of the San Francisco City Water Works, including its franchise and going business. The consideration was \$3,200,000, also paid for in stock of the purchasing company at its face value. In the latter deal, according to complainant's calculation, \$2,410,000 represents the price paid for franchise and business. This sum of money was thus capitalized, and stock issued therefor. It is said that both lots of stock thus taken were held as property. Dividends were paid on it for many years. It has been purchased by successors of the original stockholders in reliance upon that franchise and business as a part of the property. Complainant now says that under the ruling in *Willcox v. Consolidated Gas Co.*, 212 U. S. 19, 42, 48, there should be added to the valuation of its physical properties, \$2,592,000, in order to arrive at the actual value upon which it is entitled to a return.

In the Willcox case, seven gas companies operating in the City of New York, owning exclusive franchises, were permitted to consolidate by an act of the Legislature, which contained a proviso to the effect that the capital of the new consolidated company should not exceed the fair aggregate value of the property, franchise and rights of the several companies. The total value of the seven franchises was fixed at \$7,781,000. Stock of the new company was issued to cover that value. From the time of their creation to the date of consolidation "these companies had been free from legislation upon the amount of the rates to be charged

“for gas”; they had paid enormous dividends; several of the companies had averaged from date of organization dividends of over 16 per cent per annum; and a statute prohibiting the laying of any more gas-pipe in the streets of the city for twenty years further enhanced the value of their property. The lower court fixed the value of the franchise at the time the suit was brought at \$20,000,000, on the theory that the value of the franchise and the value of the tangible property had advanced with equal pace. The Supreme Court in declining to allow a valuation exceeding that fixed at the date of consolidation, said:

“Because the amount of gas supplied has increased to the extent stated, and the other and tangible property of the corporation has increased so largely in value, is not, as it seems to us, any reason for attributing a like proportional increase in the value of the franchises. Real estate may have increased in value very largely, as also the personal property, without any necessary increase in the value of the franchises. Its past value was founded upon the opportunity of obtaining these enormous and excessive returns upon the property of the company, without legislative interference with the price for the supply of gas, but that immunity for the future was, of course, uncertain, and the moment it ceased and the legislature reduced the earnings to a reasonable sum the great value of the franchises would be at once and unfavorably affected, but how much so it is not possible for us now to see. The value would most certainly not increase.”

The court concludes its discussion of this subject with the following words:

“What has been said herein regarding the value of the franchises in this case has been necessarily founded upon its own peculiar facts, and the decision thereon can form no precedent in regard to the valuation of franchises generally, where the facts are not similar to those in the case before us. We simply accept the sum named as the value under the circumstances stated.”

The case before us presents few features which are similar to those in the Gas case. According to complainant, there is no history of enormous dividends. There is a story of inadequate returns from the very beginning. The franchise acquired from Ensign was created by an act of the Legislature of the State of California, approved April 23rd, 1858; it provided for rates yielding not less than 20 per cent per annum on the actual capital invested. It required the company to furnish water for fire and other municipal purposes without charge, and fixed the life of the franchise at 30 years. The act confirming the municipal ordinance creating the San Francisco City Water Works, was approved March 18th, 1858. The ordinance provided that water rates should be so fixed by the Supervisors as to afford a gross income on the “actual cash capital invested of 24 per cent per annum “for the first five years, and 20 per cent thereafter.” The life of the franchise could not exceed 20 years, and the company was required to furnish water to extinguish fires, and for other public purposes, without

charge. Under these statutes the rates should have been sufficient to leave a handsome margin, after paying taxes, operating expenses and a fair income on the investment. Such a margin would represent the independent earning power of the franchises. At the time they became the property of the Spring Valley Water Works, these franchises were undoubtedly expected to be in force for years. Because of this fact, in 1863 and 1865 they were probably worth the full amount for which they were capitalized, but the people who took the stock and dealt in these franchises, and the company itself, knew the law, and knew that one would expire in 20 years, that is, in 1878; and the other at the end of 30 years, that is, in 1888.

In the 44th volume of the California Reports, at page 493, there is a case entitled *San Francisco v. Spring Valley Water Works*. It appears that in 1868 the Spring Valley Water Works, then operating under the franchises above mentioned, refused to furnish further water to the municipality for public use, without compensation. It took this action on the ground that private property could not be taken for public use without just compensation. The matter was taken to the Supreme Court of the State twice, and finally the Ensign Act was declared unconstitutional.

It is impossible for the court at this time to find an independent valuation for these franchises, one of which was based upon an unconstitutional statute, and both of which expired years ago. There is no testimony in the case on which any independent franchise valuation can be based.

PROPERTIES OUT OF USE.

The following is a list of properties out of use, and in the column opposite each item is its cost:

1. Alms House Reservoir Site.....	\$ 63,300.00
2. California Agricultural Association (Clear Lake)	243,341.61
3. Manzanita Water Company (Portola).....	24,421.03
4. San Francisco Lands and Improvements.....	23,193.07
5. Searsville Tunnel	89,865.13
6. Searsville Dam	121,672.24
7. Searsville Improvements	32,303.09
8. Searsville Lands	53,958.25
9. Pescadero Improvements	35,837.01
10. Pilarcitos Artesian Wells	6,381.48
11. Purissima Lands	17,940.00
12. San Gregorio	7,150.00
13. Sausalito Water Works.....	15,519.07
14. Buchanan Street Reservoir.....	133,343.88
15. Brannan Street Reservoir	8,936.92
16. Islais Flume	15,190.57
17. Lobos Creek and Flume.....	31,259.14
18. Lobos Creek Artesian Wells.....	634.90
19. Lobos Creek Pump	23,469.00
20. Lobos Creek Lots	2,500.00
21. Locks Creek Line (part of).....	197,809.00
22. Lafayette Park Pump.....	9,005.77
23. Ringold Street Pump.....	8,115.15
24. San Andreas Pipe Line (part).....	79,000.00
25. Wells at Headwaters.....	6,451.58
26. Wells at Warren and Tuttle.....	11,760.03
27. Wells, Sundry	3,675.68
28. San Pedro Pumps and Works.....	26,842.30
29. Pilarcitos Flume	248,739.80
30. Stone Inlet Tower and Culvert through Pilarcitos Dam	8,400.00
31. Lake Merced Old Pumps.....	156,318.00
32. Crystal Springs Old Pumping Station.....	79,804.00
33. Thomasson Lot, Ashbury Heights.....	1,500.00
34. Lake Merced Coal Yard Lot.....	1,600.00

35.	City Engine	8,387.18
36.	Meters	119,531.72
37.	Potter Charges for Wells, Boilers, etc.....	10,399.85
38.	Old Office Building and Lot (net cost).....	10,142.90
39.	Branch Flume at Pilarcitos Dam.....	9,760.06
40.	San Francisco City Water Works.....	1,261,198.34
41.	Telegraph; cost of lines to Lake Honda, San Andreas and Pilarcitos in 1868.....	4,459.04
42.	Crystal Springs Upper Dam, proportional cost of dam not useful.....	.....
43.	(Ocean View Pumps.....\$25,349.24)	
44.	(Upper Pilarcitos Dam.....31,376.40)	
45.	Calaveras Dam; explorations and surveys....	44,446.46
46.	San Antonio Improvements.....	4,305.47
47.	Portion of Concrete Dam, Colma Gulch Drain- age System, Lake Merced.....	25,000.00
48.	Lake Honda Dividing Wall (portion of).....	10,000.00
49.	Crystal Springs Dairy Land.....	25,000.00
50.	Stevens Creek Lands.....	4,169.50
51.	Arroyo Valley Lands (4,421.8 acres).....	64,287.47
52.	Small Dam at Pilarcitos.....	1,152.75
	Suburban Properties, Ten Parcels of Land and Improvements	737,879.36
	Total	<u>\$4,129,357.80</u>

ITEM 12. SAN GREGORIO.

This refers to water rights on the lower San Gregorio creek. No water was ever drawn from this source to San Francisco. Of the total cost of this property, \$7,150, \$2,650 is shown on defendants' exhibit No. 131, and \$4,500 on defendants' exhibit No. 116.

ITEM 17. LOBOS CREEK AND FLUME.

There is no dispute as to the fact that this property is wholly out of use, but Mr. Wenzelberger's examination of complainant's books discloses a cost of \$31,-

259.14. Of that item Mr. Reynolds was unable to find \$5,600. This precise amount appears in Mr. Wenzelberger's new construction account of date June 30th, 1886. Mr. Reynolds, under the heading "New Construction" for the same year gives only a lump sum, \$239,367.45. If this were itemized possibly the missing item would appear. I allow \$31,239.14 as the cost of Lobos creek and flume.

ITEM 21. A PART OF LOCKS CREEK LINE.

The evidence as to the original cost of the entire property, and of that portion of the property which is still in use, is so uncertain that I cannot find any part of this property out of use in excess of that which is conceded, to wit, \$197,809.

ITEM 29. PILARCITOS FLUME.

According to Mr. Reynolds, the original cost up to 1865, of the Pilarcitos pipe, flumes, dams and tunnels was \$458,096.65. Mr. Wenzelberger shows that the cost of the Pilarcitos works, outside the flume and pipe line, prior to that date, was \$170,252.85; the balance, \$287,843.80, represents the cost of the flume and pipe line. Mr. Schussler says that this pipe line and flume went entirely out of use after the new Pilarcitos line was completed, but that the pipe was taken up, cleaned and used elsewhere. According to Mr. Wenzelberger, the original cost of this iron pipe was \$39,104. The cost of the property thus passing out of use is found to be \$248,739.80.

ITEM 32. CRYSTAL SPRINGS OLD PUMP-
ING STATION.

ITEM 43. OCEAN VIEW PUMPS.

Crystal Springs Old Pumping Station was constructed in 1877 at a cost of \$105,804. It is now out of use. The force pipe is used in various parts of the work. The pump itself was removed to Ocean View some time prior to 1891, and is now the Ocean View Pumping Plant, and is maintained as a relief pump in case of accident to the Lake Merced pump and force pipe. It has not been used for nine years. It was subjected to a test run in 1891, and was used in 1877 and 1895. It never was a first class pump. If the life of a pump is but 30 years, and wrought iron pipe and wooden structures but 40 years, it is evident that this property is of but little present worth. However, it will not be included among the properties out of use.

ITEM 36. METERS.

Mr. Wenzelberger gives the cost of meters at \$400,-293.27, and \$70,154.52 for setting and putting them in order; total cost \$470,447.79. Against this there is a credit of \$130,761.55, leaving a balance of \$339,686.24. Mr. Schussler estimates the value of the meters on hand at \$150,000. This may be a rough estimate, as complainant says, but it is in evidence, and inasmuch as it was offered by complainant, it will be accepted as correct. A deduction of \$119,531.72 for meters out of use seems reasonable.

ITEM 38. OLD OFFICE BUILDING.

This building and lot originally cost \$35,142.90. It was sold for \$25,000, but as no part of the property is in use, none of the original cost can be considered as property in service.

ITEM 39. BRANCH FLUME AT PILARCITOS DAM.

There is evidence of three flumes, viz., the Pilarcitos branch flume, constructed in 1864; Pilarcitos side flume (old), constructed in 1866; and the Pilarcitos side flume (new), constructed in 1876. It is not clear that the new side flume is not the old side flume taken down and rebuilt on a higher level. The branch flume, however, will be included among the properties out of use.

ITEM 40. SAN FRANCISCO CITY WATER WORKS.

For the San Francisco City Water Works property acquired in 1865, the construction account of the Spring Valley Water Works was charged with \$1,698,000. Of this purchase the real property still in use is worth \$300,000, and pipe in the city distributing system \$136,801.66. Among the properties out of use included in this purchase, was a strip of land on Lobos Creek, water rights on the same creek, capable of yielding 2,000,000 gallons of water per day; an aqueduct leading from Lobos Creek around Fort Point to the foot of Van Ness avenue, and a legislative franchise granted in 1858. The life of the franchise was

20 years. Until its expiration in 1878, it was believed that the company was entitled to water rates which would yield a gross revenue of 20 per cent per annum on the investment. With the expiration of the franchise its value disappeared. When competition and rivalry were eliminated there was no good will, and when the Lobos Creek water became unfit for general use, and portions of its distributing pipe were sold to the Gas Company, there was little left of the so-called unit value of the property.

ITEM 42. CRYSTAL SPRINGS UPPER DAM.

ITEM 44. UPPER PILARCITOS DAM.

Since the construction of the new Crystal Springs dam, the upper dam divides the reservoir into two parts. That part of the Greater Crystal Springs reservoir which lies behind the old dam serves merely as a settling pond. The same may be said of the upper Pilarcitos dam. For water storage, neither has any value. The road from San Mateo to the coast crosses the lake over the upper Crystal Springs dam. The original cost of this dam was \$230,827.63. It has very little value at the present time. The upper Pilarcitos dam cost \$31,376.40. Neither will be included in the list of properties out of use.

ITEM 45. CALAVERAS DAM AND EXPLORATIONS.

ITEM 46. SAN ANTONIO IMPROVEMENTS.

These items cover expenditures incurred in prospecting to determine the sites for reservoirs which are not constructed, and therefore not in use.

ITEM 47. PORTIONS OF THE CONCRETE DAM COLMA GULCH DRAINAGE SYS- TEM, LAKE MERCED.

This is not in use, and cannot be used until a third silt storage dam is constructed.

The total cost of properties out of use as above found, is \$4,129,357.80. If we deduct from this \$2,-100,199.59, the cost of properties now worn out and no longer of any value, we shall have \$2,029,158.21, representing the cost of properties still in existence, but not used in supplying San Francisco with water. If we add to this amount the appreciation in value of the several items, as well as the present value of other properties owned by the Company but not in use, \$3,-071,994, we shall have for the present value of all such property, approximately \$5,101,152, as shown below.

In order to avoid disclosure of its plans the company has purchased a large portion of its real estate through trustees. In such matters its wishes were respected in the taking of testimony, consequently it is impossible to locate, describe, or value all its holdings. Furthermore, there is an absence of testimony as to present value of many items which are known. In such cases I have used the cost price, if disclosed.

Bringing forward\$2,029,158

the additional values found are as follows:

Alms House Reservoir Site:

Present value.....\$ 125,000

Less 63,300 (cost) 61,700

Searsville or Portola Lands:

340 acres Reservoir Site at \$1,000.\$ 340,000

572 acres watershed at \$50..... 28,600

Total\$ 368,600

Less	53,958 (cost)	314,642
<hr/>		
Buchanan or Market Street Reservoir:		
Present value	\$ 281,000	
Less	133,343 (cost)	147,657
Brannan Street Reservoir Site:		
Present value	\$ 38,300	
Less	8,936 (cost)	29,364
Lobos Creek Lots:		
Present value	\$ 66,665	
Less	2,500 (cost)	64,165
Arroyo Valle Land:		
4421.8 acres at \$50.....	\$ 221,090	
Less	64,287 (cost)	156,803
Calaveras Reservoir Site:		
1300 acres at \$1,000		
(Reservoir value).....	\$1,300,000	
Plus agricultural use	90,240	
	<hr/>	
	\$1,390,240	
Less \$100 per acre		
watershed value	\$ 130,000	1,260,240
Crystal Springs Reservoir, Land not now in use for Reservoirs:		
430 acres at \$1,000	\$ 430,000	
Less \$100 per acre		
watershed use	43,000	387,000
1500 acres on Locks Creek		
at \$50		\$ 75,000
Office Building, Corner Stockton and Geary Streets:		
Present value	\$ 694,640	
Less 25.8 per cent, proportionate		
value of Spring Valley		
Water Company use	\$ 179,217	515,423
Niles Dam and Aqueduct		60,000
	<hr/>	
Total		\$5,101,132

This list does not include the unused value of the San Antonio, Arroyo Valle and other reservoir sites,

or undeveloped or unused water rights. Perhaps it is worthy of note that Mr. Schussler values the 4421.8 acres in Arroyo Valle, 1500 acres in the Locks creek region, the Alms House reservoir tract and the Market street reservoir tract at \$4,500,000.

SUMMARY OF VALUE OF PROPERTIES.

The value of complainant's properties used in supplying defendants with water in 1903-4 was as follows:

1—1880 acres reservoir land	\$ 1,880,000	
2—40,379.52 acres watershed	3,947,712	
3—2730 acres Lake Merced property	3,382,600	
4—Water rights	2,100,000	
5—Rights of way	200,000	
6—City Reservoir Sites:		
Lake Honda	\$165,000	
University Mound	38,300	
College Hill	40,800	
Clay Street Tank	70,000	
Lombard Street or Upper		
Russian Hill	120,000	
Francisco Street or Lower		
Russian Hill	72,000	
Clarendon Heights	12,600	
Potrero Heights	9,150	
Presidio Heights	40,000	\$ 567,850
7—Pump Tracts:		
Black Point	\$ 15,000	
Clarendon Heights	12,475	
Ocean View, Ocean Side Tank....	1,000	
Millbrae Pump Tract, 68 acres..	25,000	
Belmont Pump Tract, 45 acres ..	16,544	
Carville Pump Tract	1,000	\$ 71,019
8—Bryant Street Pipe Yard and Building.....	\$ 65,000	
9—Office Lot Building (Spring Valley Water		
Company use)	\$ 179,217	
Total Real Estate		\$12,393,398

10—Meters	\$	150,000	
11—Stock on hand		270,000	
12—Crystal Springs System:			
Lower Concrete Dam.			
Excavation	\$	52,920	
Concrete Factory		78,229	
Outlet Shaft		81,510	
Howard Cut		103,433	
Extra Work		79,050	
Main Dam—Concrete		1,399,080	
Upper Dam		50,000	
Buildings at Upper Dam		10,359	
Screen House and Tank at			
University Mound Reservoir..		6,000	
Pipe Line to San Francisco		796,444	
Trestles		20,400	
Tunnels		39,934	\$ 2,717,359
13—Alameda Creek System:			
36-inch Pipe Line: On trestles..\$		107,300	
36-inch Pipe Line: In ditch ...		806,332	
Trestle through marsh }			
Gate at Burlingame }		75,000	
54-inch Pipe Line		318,530	
Connections		7,670	
Submarine Pipe Line: Double			
16-inch		150,000	
Submarine Pipe Line: Double			
22-inch		285,900	
Pleasanton Improvements		75,559	
Sunol Filter Beds, Laguna			
Ditch and Sunol Dam		275,193	
Sunol Aqueduct		324,608	
Niles Dam and Aqueduct		40,000	\$ 2,466,092
14—Pilarcitos System:			
Pilarcitos Dam and Waste Weir.\$		326,778	
Upper Pilarcitos Dam		10,000	
Pilarcitos Pipe Line		303,235	
Pilarcitos Side Flume		14,000	
Gate House		21,412	
Pilarcitos Camp		5,093	
Flume and Gauge Tank		840	

Tunnel No. 1	27,096		
Tunnel No. 2	68,320		
Lake Honda Tunnel	44,612		
Lake Honda Screen House	10,640		
Tank House	880		
Lake Honda (Large) Tank	4,000		
Ocean House Flume	9,233	\$	846,139
15—Lake Merced Drainage System		\$	232,454
16—San Andreas System:			
Main Dam and Waste Weir....	\$ 488,541		
Pipe Line	480,557		
Forebays, Gate Houses, Outlets, Shafts and Appurtenances ..	41,307		
Bald Hill Tunnel	52,875		
Davis Tunnel	29,724		
Flume and Pipe Feeder	17,451		
Buildings at reservoir	11,704		
Screen House and Measuring Tank	8,375		
Sewer Pipe	7,317		
College Hill Aerator	1,772	\$	1,139,623
17—Locks Creek:			
Locks Creek Flume	\$ 87,413		
Locks Creek Tunnel No. 1.....	57,910		
Locks Creek Tunnel No. 2.....	73,304		
Pilarcitos Stone Dam	7,482		
Pilarcitos Stone Dam Flume ...	15,901		
San Mateo Valley Clay Settling Dam	7,126		
San Mateo Concrete Dam	9,150		
Pipe Line across San Andreas Valley	23,280		
Concrete Tunnel, Culvert, etc...	5,800		
Buildings	2,500	\$	289,866
18—City Distributing Reservoirs:			
Lake Honda	\$ 294,157		
University Mound	167,109		
College Hill	57,265		
Francisco Street	43,574		
Lombard Street	41,725		
(Presidio Heights)			

Potrero Heights	17,768	
Clay Street	13,324	
Clarendon Heights	14,577	\$ 649,499
19—Pumping Plants:		
Belmont Pumping Station	\$ 277,021	
Millbrae Pumping Station	271,580	
Lake Merced Pumping Station ..	276,116	
Crystal Springs Station	130,756	
Pilarcitos Station	30,167	
Black Point Station	165,787	
Clarendon Heights Station	54,780	
Ocean View Station	10,000	\$ 1,216,207
20—City Pipe System		\$ 4,500,000
21—Special Structures, viz:		
Lake Honda Sewer Tunnel		
Lake Honda Pipe Tunnel		
Bernal Heights, two Tunnels		
Islais Creek Trestle		
Ocean Side Tank		\$ 59,316

RECAPITULATION OF STRUCTURES.

Crystal Springs System	\$2,717,359	
Alameda Creek System	2,466,092	
Pilarcitos System	846,139	
Lake Merced Drainage System..	232,454	
San Andreas System	1,139,623	
Locks Creek	289,866	
City Distributing Reservoir ...	649,499	
Pumping Plants	1,216,207	
City Distributing System	4,559,316	
22—12 1-2 per cent for engineering and interest during con- struction	1,764,569	\$15,881,124
Total Real Estate		12,393,398
Meters and stock on hand		420,000
Total		\$28,694,522
23—Less Depreciation		2,922,538
Total Value of Property		\$25,771,984

ITEMS 6 AND 7. CITY RESERVOIR SITES AND PUMP TRACTS.

I have adopted the estimates of Mr. Schussler for sites of Lake Honda, Clay street tank, Lombard street reservoir, Francisco street reservoir, Presidio Heights reservoir, Millbrae pump and Carville pump. I have adopted Mr. Baldwin's estimates for sites of University Mound reservoir, College Hill reservoir, Black Point pump and Clarendon Heights pump. Mr. Schussler values the Belmont pump tract at \$25,000, and Mr. Grunsky fixes it at \$8,000. I appraise the Millbrae and Belmont lots at about the same price per acre. My estimates on Clarendon Heights and Potrero Heights reservoir sites are less than Mr. Schussler's, but more than Mr. Baldwin's.

PIPE, ETC.

One of the most strongly contested points in the case is the present cost of wrought iron pipe. Nearly all such pipe used by the company was specially manufactured. There are no regular market quotations for just such material. Owing to the disappearance of cash books covering an important period in the construction of the plant, and inaccurate bookkeeping, the prices actually paid, not only for pipe, but also for labor and other materials, are involved in more or less doubt. Prices, particularly of metal and labor, have fluctuated, and there is some uncertainty as to the quality of iron used in each line; consequently, present cost of reproduction, that is, what it would cost to reconstruct the pipe lines in March, 1903, is very much a

matter of opinion. Mr. Schussler testifies to a unit of 10.6 cents per pound of pipe, as the present average cost. The importance of this unit rests on the fact that there are in use over thirty million pounds of such pipe. Mr. Schussler's unit is based in the main on the cost of the Alameda 54-inch line, built in 1902 and 1903, and on his estimated average present cost of the various grades of iron now used by the company. The Alameda 54-inch pipe line probably represents the highest grade of material, the most skillful workmanship and the latest and most approved contrivances and devices to be found in constructions of this character. The pipe is laid in concrete saddles; the interior edges of the iron plates are bevelled to diminish friction, and there are automatic vacuum valves with bronze shut-off gates. These improvements are not found on the older lines.

Plates manufactured in Scotland at a cost of between 5 and 6 cents a pound were used for the original Pilarcitos and the original San Andreas 30-inch lines. The iron was rusted en voyage. The cost of this iron, according to Mr. Schussler, is today 4.6 cents per pound delivered in San Francisco; 27/100 of a cent less than the cost of the 54-inch Alameda pipe. The difference is made up in part of switching charges and cost of moving iron from one point to another in the company's shops, an expense which does not appear to have entered into the cost of any other pipe. The Pilarcitos line, 67,570 feet in length, was constructed in 1867 and 1869 at a cost of about \$388,883, or 13.67 cents per pound of plate iron. This pipe was neither

chipped nor properly caulked when laid; it gave much trouble, particularly "where the ground was "alkali", and finally about four miles of it was taken up, cleaned, recoated with asphaltum and relaid; since then it has done good service.

The San Andreas 30-inch line, 65,300 feet in length, was laid in 1870 and 1871. This pipe gave so much trouble that about 26,000 feet was replaced in 1897 and 1898 with what is known as the 44-inch San Andreas pipe. Actual cost in 1897 of this 44-inch pipe delivered in San Francisco was 2.65 cents per pound. The average present value of all the San Andreas pipe delivered in San Francisco is estimated by Mr. Schussler at 4 cents per pound. The total cost of the entire line, as shown by complainant's accounting department, was \$689,162, or 12.97 cents per pound for the old, and 8.5 cents per pound for the new line. In February, 1904, Mr. Schussler estimated the cost of the San Andreas line at \$600,000; in 1901 at \$550,000. During the same year Mr. Ames, secretary of the company, fixed the cost at \$499,168.24, and Mr. Grunsky, then city engineer, appraised it at \$490,443. Mr. Schussler's present valuation, excluding 10% for contingencies and 5% interest during construction, is \$571,658.

The Crystal Springs 44-inch pipe line, originally 95,660 feet in length, was constructed in 1884 and 1885 at a cost of \$955,308.43, or 10.1 cents per pound of iron plate. In the water rate investigation of 1889-90, Mr. Schussler testified that the cost of this line complete in the ground, with water running through

it, was 8.9 cents per pound for the No. 6 iron, and exactly 9.4 cents a pound for the No. 7 iron. The cost of manufacturing and laying the pipe, including extra fittings, appears to have been 2.77 cents per pound of iron plate as against 3.39 cents for the 54-inch Alameda pipe.

The Alameda 36-inch line, 144,135 feet in length, was constructed in 1887 and 1889 at a cost, computed by complainant, of \$1,296,000, or 12.87 cents per pound.

In 1897 force pipe for the new Millbrae pumps cost 3 cents a pound delivered in San Francisco, or $2\frac{1}{4}$ cents in Pennsylvania.

In the rate investigation of 1900-1, Mr. Schussler said:

"We have lately made a contract for iron, at, I think it was, 2.65 cents a pound free on board the cars in Harrisburg, and I think the freight is 75 one-hundredths of a cent, making it about 3.41 cents here. Making allowance for the cost of manufacturing the iron and rivets, shipping, and then working the pipe, rivetting, punching, calking, dipping asphaltum, transportation, digging the trenches, rivetting the pipe together in the ditch and calking it boiler-fashion, covering it up again and restoring the ground as we find it before we dig the trench, and making proper allowances for the manholes, blow-offs, air-cocks, etc., it will not come very far from $8\frac{1}{2}$ cents per pound. That means good first class iron."

In explanation of Mr. Schussler's answer counsel say:

"Mr. Schussler referred to the Islais Creek pipe, which was the latest pipe for which iron had just been ordered of the same quality as that used in the bulk of the new San Andreas pipe line. This iron, although not up to the quality of the high grade charcoal iron used in nearly all of the other pipe lines of complainant, was still good first class iron."

Mr. Schussler's explanation is that $8\frac{1}{2}$ cents

"was about the estimate of cost at that time for that low grade iron * * * we have imported iron which cost us delivered here, instead of 3.41 cents, it cost us 4.87 cents, while the iron of the Crystal Springs and Alameda pipe cost us about 4.6 cents per pound here. * * * You will find that the difference between the figure at that time and the figure here is fully justified by the increase of the price of the metal and the labor."

As all the important pipe lines were constructed, except the Alameda 54-inch, before Mr. Schussler gave his estimate of $8\frac{1}{2}$ cents per pound, it is safe to conclude that the Alameda 54-inch pipe as a whole, is the most costly to be found in the system.

As an illustration of this, the record shows that the manholes on the Alameda 54-inch line cost \$25 as against \$25 for the San Andreas and \$15 for the Alameda 36-inch and the Crystal Springs. Air-vales for the 54-inch pipe cost \$60 each as against \$54 for the San Andreas, \$25 for the Alameda 36-inch and \$20 for

the Crystal Springs. Blow-offs for the first line cost \$55 as against \$50 for the San Andreas and \$8 for the Alameda 36-inch and the Crystal Springs.

In 1901, a year and a half before this suit was brought, Mr. Grunsky said the best quality of laminated iron could be delivered in San Francisco for $3\frac{1}{4}$ cents per pound, and could be laid in the ground complete for 6.8 cents per pound. Mr. Schuyler and Mr. Adams fix the unit of cost for the Crystal Springs line at 9.4 cents per pound for pipe laid in ditches, and 6.9 cents per pound for pipe laid on trestles. For the Alameda 36-inch line their corresponding units are 9.4 cents and 7.4 cents per pound. For the Pilarcitos, Mr. Adams' unit is 10.5 cents, Mr. Schuyler's 10.5 and 10.6. For the San Andreas 44 and 37-inch pipe their unit is 8.5. For the 30-inch San Andreas 10.6, For the Lobos Creek 44-inch pipe, 9.6. For the Locks Creek 44-inch pipe 9.6. Mr. Schussler's unit is 10.6, except for less important lines, where the figure sometimes reaches 11 cents. For pipe laid on trestles, Mr. Schussler estimates the cost per pound for the 44-inch Crystal Springs at 8.6, and for the Alameda 36-inch pipe at 8.51.

I have adopted the following units:

Alameda 54-inch	10.6
San Andreas 44 and 37-inch pipes.....	8.5
Crystal Springs: Pipe in trenches.....	9.4
“ “ Pipe on trestles.....	6.9
Alameda 36-inch: Pipe in trenches.....	9.4
“ “ Pipe on trestles.....	7.4
San Andreas 30-inch pipe and the Pilarcitos.....	10.

These units when increased by $12\frac{1}{2}\%$ for contingencies, engineering and interest during construction, are, in my judgment, a fair and liberal estimate of the cost of laying wrought iron pipe.

As to measurements, quantities and dimensions, there has been very little dispute. For the most part Mr. Schussler's figures have been adopted. The point of difference is the unit of cost, and as to this, variance among the experts is largely due to varying judgment as to efficiency and cost of labor. For example, on the San Andreas waste weir, 696,000 brick were laid; the cost per thousand is thus estimated:

	Schussler	Adams	Schuyler
Cost of brick, cement and sand delivered at weir.....	\$26.48	\$24.37	.....
Labor	25.80	9.50	.....
	<u>\$52.28</u>	<u>\$33.87</u>	<u>\$35.00</u>

Mr. Schussler says a day's work on this weir for a bricklayer was 500 brick; Mr. Adams says 1,000, and Mr. Higgins, foreman when the work was performed, says "We must have averaged from 1,000 to 1,200 "brick a day."

On the Pilarcitos tunnel the units were as follows:

	Schussler	Adams	Schuyler	Higgins
Cost of brick, sand and cement	\$24.08	\$22.32	\$22.32	\$18.00
Hauling	7.50	4.33	4.33	5.00
Labor	31.70	11.88	14.45	24.00
	<u>\$63.28</u>	<u>\$38.55</u>	<u>\$39.20</u>	<u>\$47.00</u>
Cost per thousand brick....	\$63.28	\$38.55	\$39.20	\$47.00

Mr. Higgins, who performed this work, says his contract price for the labor was \$24 per thousand brick

laid; each bricklayer averaged 1,500 brick per day, and there was a profit on the contract. Mr. Schussler estimates a day's work on this tunnel at 400 brick; Mr. Schuyler and Mr. Adams at 800.

For 157,200 cubic yards of concrete work at the main Crystal Springs dam, Mr. Schussler's estimated price per cubic yard is \$10.38, of which labor is \$4.16. Mr. Adams' unit is \$8.90, of which labor is \$1.50. Mr. Schuyler's unit is \$9.00, of which labor is \$1.62.

The value of the Pilarcitos side flume is estimated by Mr. Schussler for its 100,000 feet of redwood lumber at 18 cents per foot; by Mr. Adams, Mr. Schuyler and Mr. Grunsky at 14 cents.

While the cost of labor has advanced over prices ruling in more recent years, yet since the earlier structures were built, prices for brick, cement, wrought iron plate and asphaltum for dipping pipe, have fallen. Modern methods have reduced the expense of drifting tunnels, and steam shovels could be used to good advantage in excavations like those at Sunol.

The following table, though not a complete statement of all material and work appraised, exhibits substantially and fairly the effect of the unit values. The unit adopted for brick work, cement work, woodwork and wrought iron, includes the cost of incorporation into structures. In the final result 12½% is added to cover engineering, interest during construction, etc. The table includes lumber in flumes, chutes and fences, but not lumber in buildings.

	Value	Unit
Brick work (10,680,544 brick) ..	\$ 356,196	\$33.35 per M.
Lumber (1,576,092 ft.)	120,640	76.54 per M.
Concrete work (5,712,730 cu. ft.)	1,874,400	.328 " cu. ft.
Excavations (989,158 cu. yds.) ..	508,940	.514 " cu. yd.
Embankments (820,500 cu. yds.)	521,555	.635 " cu. yd.
Drifting tunnels, etc. (39,172 ft.)	433,139	11.057 " ft.
Wrought iron pipe in trenches (28,085,970 lbs.)	2,667,634	.0949 per lb.
Wrought iron pipe on trestles (2,136,800 lbs.)	154,689	.0723 " "

ITEM 12. CRYSTAL SPRINGS SYSTEM.

I have allowed nothing for removing pipe from the bed of Crystal Springs reservoir. This pipe was re-laid in the 44-inch San Andreas line. The expense was incurred in saving the pipe, not in constructing the dam.

While the main concrete dam is thicker and stronger than is necessary for its present service, as an extra precaution for the safety of people who live below between the dam and the bay, it is certainly useful. No deduction is made, though precedents are not wanting for such a course.

ITEM 13. ALAMEDA CREEK SYSTEM.

The Niles dam and aqueduct have had no part in supplying the city with water since the works at Sunol were completed. They are not essential factors in the present system. In case of serious injury to the Sunol dam, the dam and aqueduct at Niles might be useful. Such a contingency, however, is not probable. The only present use of this property is in supplying ri-

parian owners on Alameda creek at and below Niles with water. The present value of this property is \$100,000. I have included it in the inventory at a valuation of \$40,000, which is, in my opinion, a very liberal measure of its probable emergency usefulness to the city.

ITEM 14. PILARCITOS SYSTEM.

The Ocean House flume had not been reconstructed in 1903 when the ordinance of that year was adopted, hence the valuation is of the old flume.

ITEM 15. LAKE MERCED DRAINAGE SYSTEM.

Mr. Adams' estimate is.....	\$234,738
Mr. Schuyler's	241,553
Mr. Dockweiler's	227,090
Mr. Grunsky's estimate is.....	\$242,889
Plus	24,288
For engineering and contingencies.	
Total	267,177
Mr. Schussler's estimate is.....	\$296,970
Plus	29,697
For contingencies,	
And	16,333
For interest during construction.	
Total	343,000

Original cost, as shown by Mr. Reynolds, was but \$210,660.29, and of this amount \$7,284.69 was expended in 1903 and 1904, probably after the ordinance of 1903 was adopted. Furthermore, some \$25,000 worth of work in this structure is not in use, and will not be useful until "the third or upper silt storage dam proves "to be a necessity and is being constructed." Whether

the \$7,284.69 should be included in the \$25,000 I am unable to determine.

Mr. Schussler's estimates on brick work, concrete work and excavations, in my opinion, are too high. For instance, on the drainage system 2,061,900 brick were used at a cost according to Mr. Schussler of about \$98,910. Mr. Adams' estimate on the same work is about \$55,000, a difference of \$43,910. For 750 cubic yards of excavation and 22,740 cubic feet of concrete at Colma Gulch, Mr. Schussler's estimate is \$10,590; Mr. Adams' \$6,094 and Mr. Schuyler's, \$7,492. For 6040 cubic yards of excavation in the masonry channel and wooden chute, Mr. Schussler's estimate is \$1,500 as against \$1,120 by Mr. Adams. For 6170 feet of castiron drainage pipe Mr. Schussler's figure is \$8,140, or \$1.31 a foot, as against Mr. Adams' \$4,936, or 80 cents per foot. If \$25,000 and \$43,900 are deducted from Mr. Schussler's estimate, the balance, \$228,070, is still in excess of Mr. Dockweiler's estimate. I shall allow \$232,454.

ITEM 18. CITY DISTRIBUTING RESERVOIRS.

The estimates are as follows:

Mr. Dockweiler	\$575,287
Mr. Adams	680,049
Mr. Schuyler	716,739
Mr. Grunsky	729,232
Mr. Schussler	820,682
Amount allowed	649,499

The Presidio Heights reservoir is not included because it was not commenced until 1902 or completed

until 1904. The greater portion of its cost was not incurred until after the 1903 suit was commenced. \$7,353.71 was expended on the Lombard street reservoir in 1904. It was constructed about 1863. There is no record of any expenditure on the property between 1863 and 1904 except \$8,340.71 in 1879. It was valued by Mr. Grunsky in 1901 at \$26,500.

ITEM 19. PUMPING PLANTS.

Actual cost as compared with expert estimates is as follows:

Cost	\$1,135,644.62
Mr. Schussler	1,651,000.00
Mr. Schuyler	1,432,000.00
Mr. Eckhart	1,398,211.71
Mr. Adams	1,335,474.00
Mr. Fitzgerald.....	1,315,095.21
Mr. Grunsky.....	1,227,395.00
Mr. Dockweiler.....	1,192,561.00
<hr/>	
Amount allowed.....	\$1,216,207.00

February 6th, 1901, two years before the ordinance of 1903 was passed, Mr. Schussler submitted to the Board of Supervisors his estimate on pumping plants as follows:

"1.—Belmont Station complete.....	\$ 175,000
2.—Millbrae Station complete.....	265,000
3.—Crystal Springs Station complete.....	92,000
4.—Pilarcitos Station complete.....	25,000
5.—Ocean View Pumping Station complete.....	50,000
6.—Lake Merced Pumping Plant complete, with force pipe and San Andreas pipe connection, bridge, Ocean View tank, wharf, suction pipes and screens, etc.....	300,000
7.—Black Point Pumping Station, inclusive of	

brick-lined storage tunnel, wharf and real estate	200,000
8.—Clarendon Heights Pumping Plant, exclusive of real estate	75,000
Total estimate of above eight Pumping Stations, exclusive of real estate (except Black Point, Millbrae, Belmont).....	\$1,182,000."

There is no testimony of any expenditures since February, 1901, on any of these plants, except \$5,019.84 on the Clarendon Heights in 1901, and \$130,558.45 on the Belmont. Of this last amount \$58,458 was expended in 1903 and 1904, probably after the 1903 ordinance was passed.

Mr. Eckhart values the engines for the seven different stations, excluding Ocean View, at \$477,885; the original cost he says was but \$397,732. The actual cost of the Millbrae engines in 1898 was \$79,780; these he appraises now at \$91,660. Concrete work which then cost 34 cents per cubic foot, he values at 40 cents.

I find the present cost of reproducing the seven pumping stations first mentioned, \$1,206,207, and to this I add \$10,000, the present value of Ocean View pump. This, as I have already said, is the old Crystal Springs pump, and has not been in use for nine years. The total is \$1,216,207. This, when increased 12½% for interest during construction, engineering, legal expenses, etc., will exceed the original cost of the seven stations more than \$230,000.

ITEM 20. CITY PIPE SYSTEM.

Mr. Schussler's estimate is based on the cost of laying in 1903-4 new pipe of first class quality. It does not appear that all castiron pipe in the system is of

the same grade. Pipe taken from lines outside San Francisco, after being cleaned was relaid in the city. This seems to have been the uniform practice. The company now claims a valuation of \$5,108,300, or about \$12,376 per mile for 412.74 miles, of such cast-iron pipe. In 1901 the claim was \$3,636,000, or \$9,523 per mile for 382 miles. This is an appreciation in the course of two years of 54 cents a foot.

The theory on which the chief engineer of the company has proceeded in valuing the city pipe system is thus explained:

"If a pipe has been laid on a macadamized street, and the next year a bituminous pavement with concrete is put over it that makes the pipe under the ground and under the pavement that much more valuable as what the bituminous pavement cost because if we had not laid the pipe prior to the bituminous and concrete pavement we would have had to cut the bituminous pavement and lay the pipe and then replace the pavement."

When the 1903 ordinance was passed the market price of castiron pipe was but \$38 per ton. Mr. Schussler has based his estimate on a price of \$40, and Mr. Adams on a price of \$45. The various estimates on the present value of the castiron pipe lines of the city distributing system are as follows:

Mr. Schussler	\$5,780,700
Mr. Schuyler	4,898,055
Mr. Fitzgerald	4,654,431
Mr. Adams	4,481,716
Mr. Dockweiler	4,401,504
Mr. Grunsky	4,308,430

The value fixed is \$4,500,000.

ITEM 21. SPECIAL STRUCTURES.

According to Mr. Schussler, the aggregate length of the two Bernal Heights tunnels is 1343 feet; through them passes a 44-inch pipe encased in brick, which fills the entire tunnel space around the pipe; and 403,500 brick were used at an expense of \$55.70 per M. Mr. Adams estimates the cost of laying these brick at \$32 per M., and Mr. Higgins, who performed a portion of this work, says but two concentric rings of brick were placed about the pipe, the back filling was of earth, and but 209,820 brick were used. The memory of the man who actually worked in the tunnel should be the most accurate as to back filling and the number of rings of brick about the pipe. I allow 225,960 brick at \$37.50 per M.

ITEM 23. DEPRECIATION.

Depreciation may be delayed, but it cannot be prevented. Ultimately every structure in complainant's plant will be worn out by use, wasted by action of the elements, broken by accident, abandoned in the development of the system, or displaced by newer and more efficient contrivances. In view of this fact, it was held in the 1908 case that complainant was entitled to an annual allowance to cover such loss. The highest courts have repeatedly declared this fact cannot be ignored in determining the value of property in rate cases.

In *Knoxville Water Co. v. City of Knoxville*, 212 U. S. 1, and more recently in *Contra Costa Water Co. v. City of Oakland*, 113 Pac. 668, the lower court

found the present cost of reproducing the plant, but failed to take into account the fact that an old plant is worth less than a new one. In each, the result was a reversal.

It is impossible to measure accurately such loss until it has matured. When a machine is worn out, we know its original value is gone; but while the machine is in use the amount of deterioration is largely a matter of opinion.

Here the difficulties of the problem are increased by the fact that a very large portion of the most valuable construction, such as pipes, masonry and concrete work, are concealed in the ground, or under water.

Counsel for the city contend that no annual allowance for depreciation should be given because it has been made good by current repairs and replacements, charged to operating expenses, and paid out of the water rates. On the other hand, counsel for the water company stoutly maintain that the structural portion of the plant cannot be reproduced for its original cost, and that its reproductive cost should not be diminished by reason of depreciation. However, complainant insists that it is entitled to an annual allowance for depreciation, and defendants believe true value cannot be ascertained except by subtracting depreciation from present cost of reproduction.

The efficiency of the plant undoubtedly has been maintained by repairs and replacements, but to find the property has not depreciated is simply impossible. The evidence shows that structures costing more than \$2,000,000 are no longer in use. In 1899, 3 1/7 miles

of small pipe, which could not have been used over forty years, was "taken up and abandoned jointly", being replaced by larger pipe. In 1898, five miles of the San Andreas 30-inch wrought iron pipe, which had been in use about 30 years "gave evidence of getting "worn out", and was replaced with 44-inch pipe. The first Lake Merced pump "built in 1877 has been "broken up and * * * sold for old iron." "The "flume from the Pilarcitos stone dam to tunnel No. "1 of the Locks Creek line has been rebuilt after 32 "or 33 years." The old Lafayette tank went out of use in 1903 or 1904; the Market street reservoir and the pipe line leading thereto from Lake Honda have been out of service more than ten years. The upper Crystal Springs dam, completed in 1878 at a cost of over \$219,000, capable of holding three billion gallons of water, is now practically submerged in the new Crystal Springs reservoir; it serves merely as a causeway between the east and west side of the lake, and also as a settling basin for roily waters which come into the north end of the reservoir at certain seasons of the year. Even the water supply is subject to deterioration. Formerly Lobos Creek furnished the city with two million gallons of water per day; the water is now unfit for use.

Mr. Grunsky estimates the period of serviceability for various parts of the works in service as follows:

Pump engines	40 years
Boilers	20 "
Wrought iron pipe.....	40 "
Flumes	20 "
Wooden buildings	40 "
Water meters	15 "

After a careful examination of pipes laid in the city, he says the results fully justify his conclusions.

Mr. Dockweiler is quoted as saying the life of a pump is but 30 years. Mr. Schuyler, after an examination of pipe which had been in use 30 years, declares that it is good for 30 years longer. Mr. Adams says the depreciation on such a plant will amount to one per cent per annum of the original cost.

I find the annual depreciation of this plant to be one per cent per annum for cast iron pipe; 2 per cent for wrought iron pipe; 2.5 per cent for pump engines, flumes and wooden structures; and 5 per cent for boilers. Thus I have ascertained the annual depreciation to be \$212,983.

The total depreciation to be deducted from the reproduction cost of structures is \$2,922,538. This I have ascertained by multiplying the annual depreciation of each structure for the number of years it has been in use, using original cost as the basis of calculation. In case of the cast iron pipe constituting the city distribution system, the result was obtained by ascertaining the average length of time the pipe laid each year had been in service. I have calculated depreciation only on wrought iron pipe, cast iron pipe, wooden structures and the pumping plants. While reservoirs, concrete work, brick work, tunnels and excavations are undoubtedly subject to deterioration, I conclude the amount obtained is sufficient to fairly cover all loss resulting from this cause, except in a few special cases, like the Crystal Springs upper dam, which originally cost \$219,476.61, and which I now value at \$50,000. The upper

Pilarcitos dam, originally costing about \$30,000, I value at \$10,000; and the Ocean View Pump, costing \$23,030.58, at \$10,000. These three items afford an additional depreciation of \$202,507.19.

My calculations give depreciation as follows:

Wrought and cast iron pipe.....	\$2,544,302.15
Pumps and pumping plants.....	258,483.41
Woodwork	119,752.81
Total	<u>\$2,922,538.37</u>

The necessity for deducting depreciation is apparent when we consider the fact three experts on behalf of complainant have made an exhaustive examination and a careful appraisal of the structural portions of complainant's plant, with total results as follows:

Mr. Schussler	\$19,467,000
Mr. Adams	16,062,445
Mr. Schuyler	17,924,806

Each estimate is the present cost of reproducing property without allowance for depreciation, and usually exceeds original cost. As an illustration of this, Mr. Schussler fixes the cost of the upper Pilarcitos dam, now practically submerged in the Pilarcitos Reservoir, at \$30,000, and adds thereto 30 per cent for increased price of labor and materials.

\$25,771,984 falls far short of \$40,000,000, the lowest estimate offered in complainant's behalf. Nevertheless, in arriving at the smaller amount, I have for the most part based present value of integral portions of the plant on figures in evidence given by complainant's

witnesses in this or some other proceeding. The total of all contributions directly made by stockholders from

1858 to 1903, inclusive, is but.....	\$ 9,177,496.82
Adding to this the bonded debt.....	13,975,000.00
And the floating debt.....	1,017,500.00

The result	<u>\$24,169,996.82</u>
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is approximately the entire amount advanced by stock and bondholders to acquire

\$25,771,984 worth of property in use,

\$ 5,101,132 worth of property in existence but not in use, and

\$ 2,100,199 worth of property neither in existence nor in use.

During the same period

\$22,450,313 have been distributed in dividends, and

\$3,991,228 undivided profits have been put back into the works.

If the property is actually worth from \$40,000,000 to \$70,000,000, that fact should be reflected at some time in the market value of the company's stock and bonds.

When the 1903 suit was brought, Judge Morrow, on motion for an interlocutory injunction, fixed the value of the property by adding the sum of bonded and floating indebtedness to the average market value of the stock during the month in which the suit was commenced, April, 1903. Thus:

Capital stock, present value.....	\$11,760,000
Bonded indebtedness	13,975,000
Floating indebtedness	1,017,500

Total	<u>\$26,752,500</u>
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(*Spring Valley Waterworks v. San Francisco*, 124 Fed. 574, 598.)

The price of the stock was \$84. It is alleged in the bill that the value of the stock at that time was about \$83 to \$85. It is also alleged that its low value was due to the passage of pretended ordinances fixing water rates, and that but for such ordinances the actual market value of said stock would now be about \$97 per share. Immediately after the suit was brought, bonds of the company were selling for \$95. The floating debt was \$1,017,500. Summarizing these the value would be as follows:

140,000 shares at \$97.....	\$13,580,000
Bonded debt	13,276,250
Floating debt	1,017,500
Total	<u>\$27,873,750</u>

If we deduct from this amount \$5,101,132, the value of existing properties owned by the company but not in use, we have \$22,772,618 representing the value of the property in actual use.

The highest price ever reached by the stock was \$103. If we take stock at \$103, bonds at par, and add the floating debt, we shall have this result:

140,000 shares at \$103.....	\$14,420,000
Bonded debt	13,975,000
Floating debt	1,017,500
Total	<u>\$29,412,500</u>
Deducting value of existing property not in use....	5,101,132
The present value of the property is.....	<u>\$24,311,368</u>

June 15th, 1903, shortly after its incorporation, the

Spring Valley Water Company offered to purchase from the Spring Valley Water Works all the properties of the latter company, as a whole, subject to outstanding encumbrances, for the sum of \$11,480,000, payable five years later without interest. It also offered to issue and sell all or any part of its capital stock to stockholders of the old company in the proportion of two shares for each share of the Spring Valley Water Works and at a price of \$41 per share for stock in the new company. This offer a few days later was withdrawn and a second offer of \$82 per share for such portion of the outstanding stock as the new company itself did not acquire before June 19th, 1908, was substituted. It was also proposed that the new company should not participate in any distribution of the capital of the old company. July 13th a third proposal, raising the price to \$90 for stock of the old company, or \$45 for stock of the new company, was accepted.

The consideration thus fixed may be summarized as follows:

Bonded indebtedness at par.....	\$13,975,000
Stock at \$90	12,600,000
Floating debt, approximately.....	1,077,446
Total	<u>\$27,652,446</u>

As this offer included all the property of the company, it also included property not then in use. Deducting \$5,101,132, the approximate present value of such property, the result is \$22,551,314, the price of the Spring Valley property used in supplying San Francisco with water, as shown by that transfer.

It is earnestly contended that this transaction was

not a sale; that it was merely a reorganization of the Spring Valley Water Works. The charter of that company would expire in 1908; its capital stock was \$14,000,000, and therefore the limit of its bond issue was \$14,000,000. It then issued and outstanding bonds amounted to \$13,975,000. It was necessary to reorganize or cease business. On the other hand, if the consideration were merely nominal, why were the first and second offers not accepted? Why negotiations extending over so long a period, which resulted in raising the consideration from \$11,480,000 to \$12,600,000? There were about 1800 stockholders. Without the consent of stockholders holding at least two-thirds of the stock, the transfer could not be consummated. To them the consideration must be satisfactory. They were not bound to accept stock in the new concern. Furthermore, the consideration was fixed by those most competent to judge the value of the property; fixed during the progress of this suit in which that value is the most important issue, and admissions of value by the Board of Directors, if against the interest of the company, of much weight.

In the 1904 case it is alleged that the market value of complainant's stock prior to 1901 averaged about \$97 per share and has at times had a market value of \$103 per share, and but for the ordinances of 1901, 1902, 1903, 1904 and 1905, the actual market value of complainant's stock (280,000 shares of Spring Valley Water Company instead of 140,000 Spring Valley Water Works) would now be about \$48.50 or more per share, but that the same is only about \$37 or \$38.50 per

share by reason of the passage of said ordinances. It was also alleged that the bonded debt was \$14,975,000. The floating debt, as shown by the evidence, was about \$1,188,893.45. The value of the property on the basis of these allegations may be summarized thus:

Bonded debt	\$14,975,000.00
280,000 shares of stock at \$37.75.....	10,570,000.00
Floating debt	<u>1,188,893.45</u>
Total	\$26,733,893.45

If we take the stock at \$103, or \$51.50 for the new stock, the highest price ever reached, we have:

Bonded indebtedness	\$14,975,000.00
280,000 shares stock at \$51.50.....	14,420,000.00
Floating debt	<u>1,188,893.45</u>
Total	\$30,583,893.45
This diminished by.....	<u>5,101,132.00</u>
Leaves a value for the property in 1904 of.....	\$25,482,761.45

In 1891 when the capacity of the plant was 30,000,000 gallons per day, the entire property was valued by its chief engineer at \$20,000,000, in round numbers. If a plant producing 30,000,000 gallons is worth \$20,000,000, other things being equal, a plant producing 35,000,000 gallons should be worth \$23,333,333.

OPERATING EXPENSES AND TAXES.

The amount actually paid out during the fiscal year 1903-4 was:

For operating expenses.....	\$566,786.97
For taxes	<u>325,287.66</u>
Total	\$892,074.63

Deducting improper charges aggregating..... 79,985.10

The net operating expenses and taxes for said fiscal
year are\$812,089.53

The deductions are as follows:

1.—Refund taxes	\$ 941.91
2.—Taxes on properties not in use.....	7,904.79
3.—Expense Lobos Creek.....	2,038.17
4.—Expense Portola Reservoir.....	882.15
5.—Expense Pescadero	1,027.00
6.—Error in coal account of 1890, corrected in the account of this year.....	10,730.00
7.—Expense water suit.....	13,100.05
8.—Expense for issuing bonds.....	3,525.64
9.—Expense of incorporating Spring Valley Water Company, paid to the Secretary of State.....	2,846.90
10.—Expense of procuring proxies on reorganization	524.50
11.—Expense of new bonds after incorporation of the the Spring Valley Water Company; paid to The American Bank Note Company.....	9,000.00
12.—Expense of examining the legality of the new bond issue	10,000.00
13.—Service connections	14,650.19
14.—Advertising, etc.	2,813.80
	<hr/>
	\$79,985.10

The first six items are conceded. As to the seventh, proper costs will be awarded or apportioned in due time by the court. There is no reason why rate-payers should be compelled to bear the entire burden of this litigation, whether they win or lose.

In *San Diego Water Co. v. City of San Diego*, 50 Pac. 633, 638, the court says:

“It will be the duty of the court on a retrial to allow no item of expenditure which is not satisfactorily shown to be an actual and proper charge in

the actual conduct of the business of supplying water; and, when legal or other general expenses are claimed, they must be shown to have had a proper relation to that business."

ITEMS 8, 9, 10, 11 AND 12.

It is argued that these items "are all expenses in connection with the reorganization of the corporation and getting out a new bond issue in 1903. That reorganization and new bond issue was necessary because the charter of the old corporation would have expired on June 19, 1908, and it can be readily seen that it was necessary to reorganize the corporation and refund its indebtedness before that time arrived. The old corporation then had a bonded indebtedness of \$13,975,000, which was within \$25,000 of the extreme limit allowed by law. There was then no other means of supplying water to San Francisco and its inhabitants except through the properties of complainant's predecessor. The corporation had to be reorganized and a new bonded indebtedness issued as a matter of necessity. The expense of doing this could not be charged to new construction; it was in no sense a constructive work, and it was in fact a necessary expense of maintaining the properties in use."

In other words, the owner of a property is about to die leaving a large indebtedness, and inasmuch as the business must go on and the property be vested in new owners, the expenses of administration, of transferring the property and arranging for money to meet liabili-

ties, should be borne, not by the estate itself, but by the patrons of the business. The argument answers itself.

ITEM 13.

It appears that in 1903 the expense of service connections, principally in the down town districts of the city, amounted to \$48,265.71. Of this expense 38%, or \$18,533.18, was charged to permanent improvements, while 62%, or \$29,732.53, was charged to operating expenses, to be paid out of the water rates. A portion of this expense, amounting to \$31,165.54, was returned to the company, and thereafter apportioned; 85%, or \$26,483.10, to permanent improvements, and only 15%, or \$4,672.44, to operating expenses.

Nothing is offered in justification of such an apportionment of receipts. The company not only recovers its entire expense, but quite a profit in the matter of the connections; while the operating expense account not only meets its own loss, but bears the burden of the profit which is taken by the company.

Item 14 is made up of charges for newspaper advertisements, lunches, charity, stock and bond exchange dues, printing deeds and expediting. No reason is given why these expenses should be borne by the rate-payers.

The amount actually paid out during the fiscal year 1904-5 was:

For operating expenses.....	\$543,672.42
For taxes	353,172.91
Total	<u>\$896,845.33</u>

Deducting improper charges aggregating.....	78,587.77
The net operating expenses and taxes for said fiscal year are	\$818,257.56

The deductions are as follows:

1.—Taxes refunded	\$16,762.61
2.—Taxes on properties not in use.....	6,906.61
3.—Expenses on Lobos Creek	1,513.50
4.—Expenses Portola Reservoir.....	1,008.51
5.—Expenses Pescadero	948.00
6.—Expenses water suit.....	51,447.14
7.—Expense issuing bonds.....	1.40
	<hr/>
	\$78,587.77

While it is possible that the operating expenses are excessive for 1904-5 and also for 1905-6, by reason of improper apportionment of moneys received for service connections and for hydrants set, still there is no evidence sufficient to support any deductions therefor.

The amount actually paid out during the fiscal year 1905-6 was:

For operating expenses.....	\$550,416.44
For taxes	387,198.93
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Total	\$937,615.37
Deducting improper charges aggregating.....	65,415.46
Net operating expenses and taxes for said fiscal year are	\$872,199.91

The deductions are as follows:

1.—Taxes on properties not in use.....	\$ 7,820.72
2.—Expense on Lobos Creek.....	1,402.63
3.—Expense Portola Reservoir	1,653.50
4.—Pescadero expense	948.00
5.—Expense in water rate suit.....	31,890.61
6.—Roof and brick bottom at Francisco street Reservoir	17,700.00

7.—Bridge at Sunol Filter Beds.....	500.00
8.—New pipe Daly's Hill.....	3,500.00
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	\$65,415.46

Items 6, 7 and 8 are apparently expenditures for new construction, which should be charged to permanent improvement rather than operating expenses.

It is clear under the decisions, that property not in use in supplying water to the city cannot be included among the properties on which the company is entitled to a return from the rate-payers. The same rule excludes from consideration in this proceeding all rents collected by the company for such unused property, as well as taxes and expenses paid thereon.

The gross income during the fiscal year 1903-4, if the ordinance of March, 1903, had been en- forced, would have been.....	\$1,943,941.06
Deducting operating expenses and taxes.....	\$812,089.53
And depreciation	212,983.00
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The remainder	\$918,868.53

would afford an income of but 3.56% on \$25,771,984, the present value in 1903 of that portion of complainant's property on which it was then entitled to a return.

It is unnecessary to find the value of complainant's property in 1904 and 1905. It is sufficient that it was no less than in 1903.

The gross income during the fiscal year 1904-5 under the ordinance of March 7, 1904, if col- lected, would have been.....	\$1,996,496.59
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Deducting operating expenses and taxes.	\$818,257.56	
And depreciation	212,983.00	1,031,240.56
		<hr/>
The remainder		\$965,256.03

is but 3.74% of \$25,771,984.

The gross income during the fiscal year 1905-6 under the ordinance of March 13, 1905, if enforced, would have been		\$2,110,200
Deducting operating expenses and taxes.	\$872,199.91	
And depreciation	212,983.00	1,085,182.91
		<hr/>
The remainder		\$1,025,017.09

would have yielded an income of but 3.97% on \$25,771,984.

In the 1903 case (*Spring Valley Waterworks v. San Francisco*, 124 Fed. 574, 600), on motion for an interlocutory injunction, Judge Morrow held that a 4.4 per cent income on the value of this property "is unreasonably low and confiscatory, and amounts to the taking of private property for public use without just compensation, thereby depriving the complainant of its property without due process of law."

In the 1904 case on application for temporary restraining order (*Spring Valley Water Co. v. San Francisco*, 165 Fed. 657), Judge Gilbert found that a net income of less than 4.4 per cent on the value of this property is less than a just compensation, and allowed a preliminary injunction as prayed for.

In the 1908 case (*Spring Valley Water Co. v. San Francisco*, 165 Fed. 667, 705), it was held that 4.03 per cent on the present value of this property is less than a just and reasonable return.

I am satisfied that each ruling cited is correct. The reasons given in their support amply justify my present conclusion that rates which yield a net return of no more than 3.56 per cent as in the 1903 case; 3.74 per cent, as in the 1904 case; and 3.97 per cent, as in the 1905 case, are unreasonably low, unjust and confiscatory.

It follows, therefore, that the ordinances complained of are unconstitutional and void, and that a decree must be rendered in favor of complainant in each of the three suits, viz.: *The Spring Valley Water Works v. The City and County of San Francisco, et al.*, No. 13,395; *The Spring Valley Water Company v. The City and County of San Francisco, et al.*, No. 13,598; and *The Spring Valley Water Company v. The City and County of San Francisco, et al.*, No. 13,756.

It is so ordered.

